

# REPORT

OF THE

# HEALTH OF LIVERPOOL

DURING THE YEAR 1878,

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LIVERPOOL :

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## REPORT, 1878.

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THE estimated population for this year was 532,681, and for 1879, 538,338, giving an estimated increase of 5,657; the natural increase by deducting 15,584 deaths from 20,612 births is 5,028 for the year 1878, being 629 less than the estimated increase.

The growth of the population is greatly influenced by immigration, encouraged by the position of the town and the demand for unskilled labour. In prosperous times there is an influx of labour from the rural districts to supply a natural demand; and when employment fails in the manufacturing towns, the distressed operatives endeavour to find the means of subsistence by the unskilled labour required about the docks, but as this is limited, and at the best of times yields but a bare living, any increase in the number competing for the work lessens the individual income and promotes poverty, overcrowding, and disease. Having experienced these evils on former occasions, a feeling of anxiety is created by the long-continued depression of trade, lest similar results should ensue.

The increased mortality of the year is owing to the prevalence of Measles and Scarlatina, the former causing 444 deaths, the latter 947 deaths, and the great extremes of temperature in the summer and winter quarters.

In a sensitive population like ours any change of temperature has a marked effect upon the Death-rate, and though a desire is frequently expressed for a return of the old-fashioned seasons when the summers were hot and the winters cold, yet, whatever may have been the effect in former times, there is no doubt that at the present day what is called "seasonable weather" is death to many. The high temperature of summer means an increased Death-rate from Diarrhœa, and the cold of winter increases the mortality from Pulmonary diseases.

Diarrhœa may be considered a "filth disease," arising from the decomposition of organic matter, but greatly influenced by atmospheric conditions. For some time past there has been a marked decrease in the deaths from this disease, but this year the Death-rate has risen owing to the high temperature, diminished rainfall, and lessened velocity of the wind. The mean temperature of the five months from June to October inclusive was slightly in excess, but the excess was highest in the three months, July, August, and September,

the period of greatest mortality, when the mean temperature was  $3\cdot1^{\circ}$  above the corresponding months of 1877. The following table briefly illustrates the difference in the meteorological conditions of the summers of 1877 and 1878 :—

#### DIARRHŒA.

1877.	No. of Deaths.	Mean Temperature.	Rainfall in Inches.	WIND. Mean Velocity in Miles.	1878.	No. of Deaths.	Mean Temperature.	Rainfall in Inches.	WIND. Mean Velocity in Miles.
June .....	35	59·4	1·144	389	June .....	42	59·0	2·961	218
July .....	68	58·6	4·532	415	July .....	310	61·7	1·075	284
August ....	221	59·2	4·921	372	August ....	370	61·7	4·250	314
September..	141	53·5	2·987	347	September .	120	57·2	4·146	354
October ....	44	50·6	3·046	471	October ....	33	51·0	2·375	399

The low temperature of the last eight weeks of the year had a very serious effect upon the health of the people, more particularly the aged, when 337 more deaths from Pulmonary diseases were registered than in the corresponding weeks of the previous year. The following table gives the weekly mean temperature and number of deaths from these diseases :—

#### LUNG DISEASES, INCLUDING PHTHISIS.

1877.	No. of Deaths.	Mean Temperature	1878.	No. of Deaths.	Mean Temperature
Week ending November 10 ....	90	50·0	Week ending November 9 ....	102	42·7
„ 17 ....	86	46·9	„ 16 ....	106	41·7
„ 24 ....	75	42·7	„ 23 ....	106	36·8
December 1 ....	76	42·3	„ 30 ....	127	36·9
„ 8 ....	118	42·7	December 7 ....	133	37·7
„ 15 ....	93	42·3	„ 14 ....	152	29·2
„ 22 ....	95	44·3	„ 21 ....	165	33·1
„ 29 ....	86	39·8	„ 28 ....	165	31·4
	719	43·9		1056	36·2



Fever, from which Liverpool has suffered so much, continues to decline, and its gradual diminution is shown in the following table :—

YEAR.	Deaths from Diarrhoea.	Deaths from Fever.	Deaths from Relapsing Fever.
1866	1145	1523	...
1867	796	656	...
1868	1108	841	...
1869	1001	783	...
1870	1151	572	355
1871	1127	701	207
1872	998	451	25
1873	906	335	...
1874	879	449	...
1875	842	490	...
1876	694	398	...
1877	605	382	...
1878	979	375	...

Mr. Reynolds, the Superintendent of the Scavenging Department, has kindly prepared some statistics of the important work conducted by him, which are appended to this Report, and show the magnitude of the operations essential for the cleansing of a large town.

During the fifty-two weeks of the year 1878 (terminating on Saturday, December 28), the Returns of the Local Registrars record 20,612 births and 15,584 deaths within the Borough; the numbers for the corresponding period of the previous year, 1877, were 20,333 births and 13,904 deaths.

Of the births 10,438 were males and 10,174 were females, making the total Birth-rate of the Borough equal to 38·7 per 1,000; the average of the previous ten years being 38·0 per 1,000.

The distribution of the births in the different wards and districts of the Borough has been arranged in the following table:—

### BIRTHS.

DISTRICTS AND WARDS.		1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Annual.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Births.
Parish.	Scotland .....	411	343	354	359	341	330	340	392	2870
	Vauxhall .....	75	88	62	87	84	76	69	57	598
	St. Paul's and Exchange..	90	82	91	95	97	72	81	74	682
	St. Anne's and Lime Street	172	147	138	145	140	147	138	139	1166
	Castle Street and St. Peter's	23	16	24	23	20	24	20	21	171
	Pitt Street and Gt. George	94	77	92	77	83	79	67	77	646
	Rodney St. & Abercromby	201	209	180	180	174	161	164	176	1445
Out-Townships.	Everton .....	551	521	567	539	535	530	521	526	4290
	Kirkdale .....	273	288	326	304	286	235	295	248	2255
	West Derby .....	349	366	311	312	293	294	310	288	2523
	The Toxteths .....	526	481	521	490	440	523	509	476	3966
Parish .....		1066	962	941	966	939	889	879	936	7578
Out-Townships .....		1699	1656	1725	1645	1554	1582	1635	1538	13034
Borough .....		2765	2618	2666	2611	2493	2471	2514	2474	20612

### DEATHS.

Of the 15,584 deaths 8,007 were of males, and 7,577 of females; 7,602 occurred in the Parish, and 7,982 in the Out-townships.

The Death-rate of the Borough was equal to 29·3 per 1,000. The average of the previous ten years was 29·0 per 1,000.

The following table shows the actual number of deaths registered in the Parish and Out-townships, previous to the transference to the districts from whence the patients were removed, of the deaths occurring in the Workhouses and Hospitals. The Death-rate of the Parish was equal to 34·9, and that of the Out-townships to 23·7, per 1,000 of the population.

The deaths occurred in the following districts :—

DISTRICTS.		1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Annual.
		Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Deaths.
Parish.	Scotland .....	218	263	261	225	281	246	245	271	2010
	Vauxhall .....	64	74	66	91	78	86	60	56	575
	St. Paul's and Ex- change .....	89	82	95	83	56	72	91	92	660
	St. Anne's and Lime Street .....	125	132	111	97	120	131	122	129	967
	Castle Street and St. Peter's .....	23	24	22	10	19	17	57	23	195
	Pitt Street and Great George .....	68	75	50	46	75	58	67	74	513
	Rodney Street and Abercromby .....	103	105	89	112	100	119	127	134	889
	Parish Workhouse and Hospitals ....	292	210	265	183	214	150	281	198	1793
Out- Townships.	Everton .....	305	287	277	264	333	339	330	328	2463
	Kirkdale .....	163	156	136	155	194	149	142	157	1252
	West Derby .....	161	174	155	136	185	210	199	180	1400
	The Toxteths .....	266	259	290	287	331	338	334	332	2437
	Out-Township Work- house and Hospitals }	74	32	69	37	42	34	87	55	430
Parish .....		982	965	959	847	943	879	1050	977	7602
Out-Townships .....		969	908	927	879	1085	1070	1092	1052	7982
Borough .....		1951	1873	1886	1726	2028	1949	2142	2029	15584

From the returns made as to the residences of persons dying in the Workhouses and Hospitals of the town, we are able to classify 1,776 of the deaths in these establishments under the wards and districts from whence the patients were removed, viz., 373 under Scotland Ward, 140 under Vauxhall Ward, 175 under St. Paul's and Exchange Wards (Dale Street District), 281 under St. Anne's and Lime Street Wards (Islington District), 26 under Castle Street and St. Peter's Wards (St. George's District), 120 under Pitt Street and Great George's Wards (St. Thomas's District), 160 under Rodney Street and Abercromby Wards (Mount Pleasant District), 190 under the Out-township of Everton, 79 under that of Kirkdale, 122 under that of West Derby, and 110 under those of the Toxteths. This will leave unclassified 255 deaths of persons whose previous residences were either unknown or not specified ;



and these, in the absence of definite information, have been placed in the Wards in proportion to the number of total deaths; and 192 who were residents outside the Borough.

The results of the alterations occasioned by this re-arrangement of the deaths in the wards and districts will be shown in the following table, from which a calculated rate of mortality per 1,000 of the estimated inhabitants has been made; but it must be observed that the estimate of the population of all the districts in the Parish has been made on a rate of decrease which is probably in excess of what is going on.

DISTRICTS AND WARDS.	Annual.	
	Deaths.	Rate per 1000.
Scotland .....	2423	32·7
Vauxhall .....	727	46·6
St. Paul's and Exchange .....	849	40·9
St. Anne's and Lime Street .....	1269	32·1
*Castle Street and St. Peter's .....	225	36·4
Pitt Street and Gt. George .....	644	32·6
Rodney Street and Abercromby .....	1067	24·1
Everton .....	2698	20·6
Kirkdale .....	1353	24·4
West Derby .....	1547	24·1
The Toxteths .....	2590	28·1
Hospitals (Residences outside Borough) .....	192	..
Borough .....	15584	29·3

\* The deaths of the 37 persons who were suffocated and crushed to death in the panic at the Colloseum Music Hall were registered in this district, and increased the Death-rate therein by 6 per 1,000.

The following table shows the natural increase or decrease of population, or the proportion of births to deaths during the year 1878, in the several districts of the Borough:—

DISTRICTS AND WARDS.	Births.	Deaths.	Increase.	Decrease
Scotland .....	2870	2423	447	..
Vauxhall .....	598	727	..	129
St. Paul's and Exchange .....	682	849	..	167
St. Anne's and Lime Street .....	1166	1269	..	103
Castle Street and St. Peter's .....	171	225	..	54
Pitt Street and Gt. George .....	646	644	2	..
Rodney Street and Abercromby .....	1445	1067	378	..
Everton .....	4290	2698	1592	..
Kirkdale .....	2255	1353	902	..
West Derby .....	2523	1547	976	..
The Toxteths .....	3966	2590	1376	..
Borough .....	20612	15392	5220	..
Hospitals (Residences outside Borough) .....	..	192	..	..
Total .....	20612	15584	5028	..

The following table, taken from the Registrar-General's Reports, will enable us to compare the mortality of Liverpool with twenty-two of the large towns of the United Kingdom:—



TOWNS.	Estimated Popula- tion in the middle of the year 1878.	Births in 52 Weeks, ending 28th Dec. 1878.	Deaths in 52 Weeks, ending 28th Dec. 1878.	Annual Rate to 1,000 of Population.		Population on Acre.
				Births.	Deaths.	
London .....	3577304	129184	83695	36·1	23·4	47·5
Brighton .....	103923	3070	2191	29·5	21·1	44·1
Portsmouth .....	129461	4258	2451	32·9	18·9	28·9
Norwich .....	84620	2831	2077	33·5	24·5	11·3
Plymouth .....	73599	2338	1858	31·8	25·2	52·8
Bristol .....	206419	7266	4409	35·2	21·4	46·4
Wolverhampton .....	74240	2816	1724	37·9	23·2	21·9
Birmingham .....	383117	15983	9751	41·7	25·5	45·6
Leicester .....	121473	4765	2519	39·2	20·7	38·0
Nottingham .....	165267	5883	3451	35·6	20·9	16·6
Manchester .....	360514	13710	10014	38·0	27·8	84·0
Salford .....	170251	7161	4336	42·1	25·5	32·9
Oldham .....	107366	4089	2759	38·1	25·7	23·0
Bradford .....	185088	6603	4130	35·7	22·3	25·6
Leeds .....	304948	11927	7244	39·1	23·8	14·1
Sheffield .....	289537	10895	7208	37·6	24·9	14·7
Hull .....	143139	6004	3471	41·9	24·2	39·4
Sunderland .....	112459	4646	2866	41·3	25·5	34·0
Newcastle-on-Tyne .....	144570	5484	3423	37·9	23·7	26·9
Edinburgh .....	222371	7357	4895	33·1	22·0	53·1
Glasgow .....	566940	20570	14077	36·3	24·8	94·0
Dublin .....	314666	9513	9269	30·2	29·5	31·3
Liverpool .....	532681	20612	15584	38·7	29·3	102·2

The average age at death of the Inhabitants of the Borough during the twelve months of the year 1878 was 23 years, in the Parish 25 years, and in the Out-townships 22 years. The following table shows that the average age was lowest during the third quarter, or during the months of July, August, and September, when Infantile Diarrhœa was prevalent:—

WARDS.	QUARTERS.								YEAR 1878.		
	FIRST.		SECOND.		THIRD.		FOURTH.		Age in Years.		
	Age in Years.		Age in Years.		Age in Years.		Age in Years.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Scotland . . . . . Avg. Age at Death	17	22	14	17	14	17	19	20	16	19	18
Vauxhall . . . . . „	17	22	19	14	13	10	20	24	17	18	17
St. Paul's . . . . . „	26	26	14	22	21	22	18	26	20	24	22
Exchange . . . . . „	18	24	26	27	15	26	26	25	21	26	23
St. Anne's . . . . . „	20	18	18	29	14	13	20	21	18	20	19
Lime Street . . . . . „	23	23	22	20	15	23	30	30	23	24	23
Castle Street . . . . . „	26	35	20	7	43	17	28	12	29	18	24
St. Peter's . . . . . „	21	20	29	19	11	10	22	17	21	17	19
Pitt Street . . . . . „	23	21	25	28	21	16	24	25	23	23	23
Great George . . . . . „	25	23	24	26	20	18	21	28	23	24	23
Rodney Street . . . . . „	19	37	31	39	17	28	23	28	23	33	28
Abercromby . . . . . „	23	31	26	40	23	18	25	39	24	32	28
Parish Workhouse } and Hospitals . . . }	40	38	39	40	38	41	40	43	39	41	40
Everton . . . . . „	22	25	20	27	15	16	19	29	19	24	22
Kirkdale . . . . . „	19	23	16	23	15	18	21	22	18	22	20
West Derby . . . . . „	20	27	17	24	16	15	23	27	19	23	21
North Toxteth . . . . . „	22	26	21	29	12	22	19	28	19	26	22
South Toxteth . . . . . „	20	24	19	17	13	14	20	21	18	19	19
Out-Township Work- } house & Hospitals }	39	37	38	41	35	34	38	41	38	38	38
Parish . . . . . „	26	27	25	27	21	22	26	28	25	26	25
Out-Townships . . . „	22	26	20	25	15	17	21	26	20	24	22
Borough . . . . . „	24	26	22	26	18	19	23	27	22	25	23

The deaths of Infants below the fifth year of their age amounted to 7,408, and thus comprised 47·5 per cent. of the whole deaths; the average number for the preceding ten years was 7,118, and the average percentage 47·9. The deaths of Infants below one year of age amounted to 3,970, or 19·3 per cent. of all the children born within the Borough died before attaining the age of twelve months.

The first of the following tables shows the districts where Infantile Mortality was relatively and absolutely greatest, the second table illustrates the influence of age on the death-rate of the Borough, and the third table places, in one connected view, the pathological history of the death registry.

WARDS.		Quarters.				Annual.	Per Cent- age of Deaths under 5 years to Total Deaths.
		March.	June.	Sept.	Dec.		
Scotland .....	Total Deaths..	481	486	527	516	2010	} 59·3
	Below 5 years..	263	309	339	280	1191	
Vauxhall .....	Total Deaths..	138	157	164	116	575	} 60·3
	Below 5 years..	70	96	122	59	347	
St. Paul's .....	Total Deaths..	104	103	74	104	385	} 51·7
	Below 5 years..	48	60	38	53	199	
Exchange .....	Total Deaths..	67	75	54	79	275	} 47·3
	Below 5 years..	34	32	32	32	130	
St. Anne's .....	Total Deaths..	175	154	179	174	682	} 56·9
	Below 5 years..	103	77	119	89	388	
Lime Street .....	Total Deaths..	82	54	72	77	285	} 48·4
	Below 5 years..	39	31	40	28	138	
Castle Street .....	Total Deaths..	13	10	8	9	40	} 35·0
	Below 5 years..	5	5	1	3	14	
St. Peter's .....	Total Deaths..	34	22	28	71	155	} 41·3
	Below 5 years..	17	11	18	18	64	
Pitt Street .....	Total Deaths..	60	42	46	55	203	} 51·7
	Below 5 years..	34	20	27	24	105	
Great George .....	Total Deaths..	83	54	87	86	310	} 49·7
	Below 5 years..	41	25	49	39	154	
Rodney Street.....	Total Deaths..	86	85	114	142	427	} 42·4
	Below 5 years..	33	30	55	63	181	
Abercromby.....	Total Deaths..	122	116	105	119	462	} 43·9
	Below 5 years..	53	44	58	48	203	
Parish Workhouse and Hospitals .....	Total Deaths..	502	448	364	479	1793	} 11·1
	Below 5 years..	68	47	38	46	199	
Everton.....	Total Deaths..	592	541	672	658	2463	} 52·2
	Below 5 years..	299	259	430	298	1286	
Kirkdale .....	Total Deaths..	319	291	343	299	1252	} 54·2
	Below 5 years..	166	150	215	147	678	
West Derby.....	Total Deaths..	335	291	395	379	1400	} 53·9
	Below 5 years..	165	159	262	168	754	
North Toxteth.....	Total Deaths..	286	291	365	338	1280	} 51·8
	Below 5 years..	142	134	225	162	663	
South Toxteth.....	Total Deaths..	239	286	304	328	1157	} 58·3
	Below 5 years..	134	162	207	172	675	
Out-Township Workhouse and Hospitals .....	Total Deaths..	106	106	76	142	430	} 9·1
	Below 5 years..	5	8	7	19	39	
Parish .....	Total Deaths..	1947	1806	1822	2027	7602	} 43·6
	Below 5 years..	808	787	936	782	3313	
Out-Townships .....	Total Deaths..	1877	1806	2155	2144	7982	} 51·3
	Below 5 years..	911	872	1346	966	4095	
Borough .....	Total Deaths..	3824	3612	3977	4171	15584	} 47·5
	Below 5 years..	1719	1659	2282	1748	7408	



AGES.	Quarters.				Annual.	
	March.	June.	Sept.	Dec.	Deaths.	Rate per 1000 of population.
Deaths below 1 year of age .....	839	839	1435	857	3970	7·5
„ between 1 year and 5 .....	880	820	847	891	3438	6·5
„ „ 5 „ 20 .....	273	303	305	425	1306	2·4
„ „ 20 „ 60 .....	1243	1134	976	1374	4727	8·9
„ above 60 years .....	588	515	411	624	2138	4·0
„ at ages unknown .....	1	1	3	...	5	0·009
„ at all ages .....	3824	3612	3977	4171	15584	29·3

The Registrars' Returns show that there were 12 deaths (10 of women and 2 of men) above the age of 90, viz., 1 male and 6 females at 91, 1 male at 92, 1 female at 94, 1 female at 96, 1 female at 97, and 1 female at 99.

CLASSES.	QUARTERS.				YEAR 1878.
	March.	June.	Sept.	Dec.	
1. Zymotic Diseases .....	705	718	1372	903	3698
2. Diseases of Uncertain Seat .....	87	79	88	95	349
3. Tubercular Diseases .....	500	550	496	532	2078
4. Diseases of Brain, &c. ....	398	406	348	406	1558
5. „ of Heart, &c. ....	207	225	184	217	833
6. „ of Lungs, &c. ....	1000	713	464	1053	3230
7. „ of Stomach, &c. ....	160	148	210	149	667
8. „ of Kidneys, &c. ....	75	62	66	85	288
9. Childbirth, Diseases of Uterus, &c. ....	33	27	11	29	100
10. Rheumatism, Diseases of the Joints, &c. ....	28	35	16	22	101
11. Diseases of the Skin, Cellular Tissue, &c. ....	13	18	15	11	57
12. Malformations .....	8	14	10	12	44
13. Premature Birth .....	51	65	48	75	239
14. Atrophy and Debility .....	238	239	351	193	1021
15. Old Age .....	129	111	106	148	494
16. Privation, Cold, &c. ....	..	2	..	..	2
17. Inquests .....	181	186	188	229	784
Causes not specified .....	11	14	4	12	41
All Causes .....	3824	3612	3977	4171	15584
Total Zymotics .....	705	718	1372	903	3698
Smallpox .....	..	1	2	..	3
Measles .....	187	201	29	27	444
Scarlatina .....	74	117	261	495	947
Hooping Cough .....	189	104	79	50	422
Diarrhœa .....	49	83	784	63	979
Typhus and Infantile Fever .....	63	83	99	130	375



## ZYMOTICS.

This class of diseases occasioned 3,698 deaths during the year 1878, and accounted for 23·7 per cent. of the total mortality within the Borough during the same period. The average number of deaths from these diseases for the preceding ten years was 3,851, and the percentage death rate for 1878 was 2·3 per cent. less than the proportional rate of zymotic deaths to deaths from all causes during the preceding decennial period. The following table shows the localities and the periods of their fatal prevalence :—

WARDS, &c.	Deaths from all Causes.	ZYMOTICS.				
		Quarters.				Per Centage of Zymotic Deaths to Deaths from all Causes.
		March.	June.	Sept.	Dec.	
Scotland .....	2010	78	132	194	107	25·4
Vauxhall .....	575	45	62	87	26	38·3
St. Paul's .....	385	26	35	28	25	29·6
Exchange .....	275	13	17	20	16	24·0
St. Anne's .....	682	37	21	60	47	24·2
Lime Street .....	285	19	10	16	17	21·8
Castle Street .....	40	4	2	1	1	20·0
St. Peter's .....	155	6	3	8	9	16·8
Pitt Street .....	203	13	7	13	8	20·2
Great George .....	310	16	15	26	17	23·9
Rodney Street .....	427	23	9	33	46	26·0
Abercromby .....	462	31	16	35	26	23·4
Liverpool Workhouse Hospital .....	1277	52	35	49	49	14·5
Royal Infirmary .....	301	2	..	..	1	1·0
Children's Infirmary .....	38	2	4	2	..	21·1
Lying-in Hospital .....	14	..	..	..	..	..
North Hospital .....	163	..	1	2	2	3·1
Stanley Hospital .....	21	1	..	..	..	4·8
Royal South Hospital .....	143	..	1	1	1	2·1
Netherfield Road Hospital .....	18	..	5	6	5	88·9
West Derby Union Hospital .....	248	..	5	2	29	14·5
Everton .....	2463	105	102	235	134	23·4
Kirkdale .....	1252	75	48	128	62	25·0
West Derby .....	1400	68	57	128	78	23·6
North Toxteth .....	1280	55	50	157	89	27·4
South Toxteth .....	1157	34	81	141	108	31·5
Parish .....	7602	367	369	574	397	22·5
Out-Townships .....	7982	338	349	798	506	24·9
Borough .....	15584	705	718	1372	903	23·7

## TYPHUS AND INFANTILE REMITTENT FEVER.

These diseases accounted for 375 deaths within the Borough of Liverpool, or for 212 in the Parish and 163 in the Out-Townships. (The average number of deaths for the preceding ten years was 540). The rate of their mortality was equal to 0·7 per 1,000 of the estimated population. Their percentage rate relatively to deaths from all causes was 1·6 during the first, 2·3 during the second, 2·5 during the third, and 3·1 during the fourth quarter of the year. Their annual rate relatively to deaths from all causes was 2·4 per cent., and relatively to deaths from zymotic causes 10·1 per cent. Their deaths included 186 males and 189 females ; 127 persons below the age of 15, 109 between the ages of 15 and 30, and 139 above the age of 30.

Every form of continued fever is included under the generic term of typhus; but the registers of deaths attribute 12 cases to gastric fever, 122 to typhoid fever, 33 to enteric fever, 1 to continued fever, 1 to brain fever, and 155 to typhus. Under the term of fever there were registered 27 deaths, under that of febris 4 deaths, and under that of febricula 4 deaths. The deaths registered under the term of infantile remittent amounted to 16.

The following tables are in themselves sufficiently explanatory. The first compares the averages of deaths from typhus during the preceding ten years with those during 1878; the second and third tables show the districts of the town and the periods of the year in which all forms of continued fever were most fatally prevalent; the fourth marks in streets the habitats of the disease; and the remaining tables the occupations and positions of its victims.

WARDS.	Exact Average of Fever Deaths for Pre- ceding Ten Years.	Deaths from Fever during the Year 1878.
Scotland.....	71	26
Vauxhall .....	15	9
St. Paul's .....	8	9
Exchange .....	7	4
St. Anne's .....	24	23
Lime Street .....	8	3
Castle Street.....	1	1
St. Peter's .....	4	4
Pitt Street.....	6	3
Great George.....	10	6
Rodney Street .....	8	7
Abercromby .....	12	10
Everton .....	92	55
Kirkdale .....		22
West Derby .....	30	20
North Toxteth .....	25	14
South Toxteth .....	27	26
Hospital Deaths .....	192	133
Total .....	540	375

In the above table the averages have been calculated without making allowance for increase of population.



DEATHS FROM TYPHUS AND INFANTILE REMITTENT FEVER IN 1878.

WARDS.	January.					February.				March.				April.				May.					June.					Quarter.	Year.	
	January.					February.				March.				April.				May.					June.							
	5	12	19	26		2	9	16	23	2	9	16	23	6	13	20	27	4	11	18	25	1	8	15	22	29				
Scotland .....	..	2	..	1	..	..	1	1	3	1	1	..	..	11	6	..	3	..	..	..	2	..	3	1	..	20	56			
Vauxhall .....	..	..	..	..	..	..	..	..	3	1	..	..	..	6	..	..	..	..	..	..	..	..	..	..	..	1	14			
St. Paul's .....	1	..	..	..	..	1	..	2	..	1	..	..	..	3	..	..	..	..	..	..	..	1	..	..	..	1	13			
Exchange .....	1	1	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	1	..	..	8			
St. Anne's .....	1	1	..	..	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	2	45			
Lime Street .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1		
Castle Street .....	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	1		
St. Peter's .....	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	1		
Pitt Street .....	..	..	..	..	..	..	..	..	..	..	2	1	..	3	..	..	1	..	1	2	..	..	..	..	..	..	3	1		
Great George .....	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	4		
Rodney Street .....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	10	9		
Abercromby .....	2	2	1	1	1	1	1	3	..	2	2	1	2	16	6	..	..	1	3	1	2	..	2	1	4	1	18	9		
Everton .....	..	1	1	1	1	1	1	..	..	..	..	..	..	6	6	..	..	1	..	..	..	..	..	..	..	..	10	9		
Kirkdale .....	..	1	2	1	1	..	..	..	..	..	..	..	..	6	6	..	..	1	..	..	..	..	..	..	..	..	9	9		
West Derby .....	..	2	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2	..	..	..	..	..	..	..	9	9	
North Toxteth .....	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..	3	1	1	..	..	1	..	..	..	..	..	2	1	
South Toxteth .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	
Hospitals (Residences out of Boro').	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Hospitals (Residences unknown) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total .....	6	9	3	4	4	3	5	6	6	6	5	3	3	4	3	6	9	4	9	9	5	7	4	7	7	83	375			

WARDS.	July.				August.				September.				October.				November.				December.				Quarter.	Year.					
	July.				August.				September.				October.				November.				December.										
	6	13	20	27	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21		28				
Scotland .....	..	..	2	..	..	1	1	2	2	1	1	1	1	11	6	..	..	..	..	..	..	..	3	1	1	..	14	56			
Vauxhall .....	1	1	..	1	..	..	..	1	1	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	1	14			
St. Paul's .....	..	1	1	..	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	13			
Exchange .....	..	1	1	2	..	1	3	..	1	..	2	3	3	1	..	..	1	..	..	..	..	..	..	..	..	..	5	8			
St. Anne's .....	..	1	1	..	1	..	..	..	..	1	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	26	45			
Lime Street .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	4			
Castle Street .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4		
St. Peter's .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4		
Pitt Street .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1		
Great George .....	..	1	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	
Rodney Street .....	..	1	1	..	..	1	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	
Abercromby .....	..	2	1	1	1	1	3	..	2	2	1	2	2	16	6	..	..	1	3	1	2	..	2	1	4	1	18	9			
Everton .....	2	1	1	1	1	1	..	..	..	..	..	..	..	6	6	..	..	1	..	..	..	..	..	..	..	..	10	9			
Kirkdale .....	..	1	2	1	1	..	..	..	..	..	..	..	..	6	6	..	..	1	1	2	..	..	..	..	..	..	..	9	9		
West Derby .....	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2	..	..	..	..	..	..	..	9	9		
North Toxteth .....	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..	3	1	1	..	..	1	..	..	..	..	..	2	1		
South Toxteth .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1		
Hospitals (Residences out of Boro').	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Hospitals (Residences unknown) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total .....	3	8	7	5	7	6	7	7	7	12	13	9	10	99	7	10	5	5	7	7	10	22	10	9	7	10	130	375			



# DEATHS FROM TYPHUS AND INFANTILE REMITTENT FEVER.

WARDS.		QUARTERS.								YEAR.		
		March.		June.		Sept.		Dec.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	TOTAL
Scotland .....	{ Below 5 years ..	..	..	..	4	..	..	1	1	1	5	6
	{ Above 5 years ..	3	1	2	5	4	1	2	2	11	9	20
Vauxhall .....	{ Below 5 years ..	..	..	..	..	2	..	..	..	2	..	2
	{ Above 5 years ..	1	1	1	..	2	1	1	..	5	2	7
St. Paul's .....	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	1	1
	{ Above 5 years ..	1	1	..	..	1	3	2	..	4	4	8
Exchange .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	1	..	1	..	..	2	..	..	4	4
St. Anne's .....	{ Below 5 years ..	..	..	..	..	1	..	2	3	3	3	6
	{ Above 5 years ..	..	1	1	1	2	5	2	5	5	12	17
Lime Street .....	{ Below 5 years ..	..	..	..	..	..	..	1	..	1	..	1
	{ Above 5 years ..	..	..	..	..	2	..	..	..	2	..	2
Castle Street .....	{ Below 5 years ..	..	..	..	..	..	1	..	..	..	1	1
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's .....	{ Below 5 years ..	..	..	..	..	..	..	1	..	1	..	1
	{ Above 5 years ..	..	1	..	..	1	..	..	1	1	2	3
Pitt Street .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	1	..	1	..	..	..	1	..	3	3
Great George .....	{ Below 5 years ..	..	..	..	..	1	..	..	..	1	..	1
	{ Above 5 years ..	1	..	..	1	2	..	..	1	3	2	5
Rodney Street .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	1	..	1	..	2	1	2	..	6	1	7
Abercromby .....	{ Below 5 years ..	..	..	1	..	..	1	..	1	1	2	3
	{ Above 5 years ..	..	1	1	1	..	..	2	2	3	4	7
Parish Workhouse and Hospitals .....	{ Below 5 years ..	1	1	..	..	..	..	..	..	1	1	2
	{ Above 5 years ..	9	14	8	12	19	9	15	19	51	54	105
Out-Township Workhouse and Hospitals.	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	3	1	1	1	11	9	15	11	26
Everton .....	{ Below 5 years ..	2	..	5	2	2	3	3	..	12	5	17
	{ Above 5 years ..	4	5	6	4	2	4	7	6	19	19	38
Kirkdale .....	{ Below 5 years ..	..	1	1	..	1	..	..	..	2	1	3
	{ Above 5 years ..	1	2	1	6	2	2	1	4	5	14	19
West Derby .....	{ Below 5 years ..	..	..	1	..	..	..	..	..	1	..	1
	{ Above 5 years ..	1	4	3	2	2	2	4	1	10	9	19
North Toxteth .....	{ Below 5 years ..	..	..	..	..	1	..	..	1	1	1	2
	{ Above 5 years ..	..	1	..	..	3	2	5	1	8	4	12
South Toxteth .....	{ Below 5 years ..	..	..	..	..	..	..	..	1	..	1	1
	{ Above 5 years ..	1	..	4	3	4	6	2	5	11	14	25
Parish .....	{ Below 5 years ..	1	2	1	4	4	2	5	5	11	13	24
	{ Above 5 years ..	16	22	14	22	35	20	26	33	91	97	188
Out-Townships .....	{ Below 5 years ..	2	1	7	2	4	3	3	2	16	8	24
	{ Above 5 years ..	7	12	17	16	14	17	30	26	68	71	139
Borough .....	{ Below 5 years ..	3	3	8	6	8	5	8	7	27	21	48
	{ Above 5 years ..	23	34	31	38	49	37	56	59	159	168	327

List of Streets in the Borough wherein Three or more Deaths from Typhus and Infantile Fever occurred in 1878.

STREETS IN THE PARISH.	HOUSES.		Total.	STREETS IN THE OUT-TOWNSHIPS.	HOUSES.		Total.
	Front.	Court.			Front.	Court.	
Birkett .....	2	1	3	Clive .....	3	..	3
Cazneau .....	3	..	3	Gordon .....	5	..	5
Circus .....	6	..	6	Howe .....	3	..	3
Clare .....	3	..	3	Kilshaw .....	3	..	3
Drinkwater Gardens ..	4	..	4	Park .....	4	..	4
Eldon .....	2	2	4	Prince Edwin .....	3	..	3
Hornby .....	3	2	5	St. Domingo Road....	4	..	4
Leeds .....	2	1	3	Salisbury .....	2	4	6
Lionel .....	6	1	7				
Raymond .....	..	3	3				
Travers .....	3	..	3				

Occupations of Persons who (either themselves or members of their family) have died from Typhus and Infantile Fever in the Workhouses or Hospitals of the Borough, tabulated into Wards from whence they came, during the Year 1878.

LIVERPOOL WORKHOUSE.

OCCUPATIONS.	WARDS.															Residences Outside the Borough.	Residences Unknown.	TOTAL.
	Scotland.	Vauxhall.	St. Paul's.	Exchange.	St. Anne's.	Lime Street.	Castle Street.	St. Peter's.	Pitt Street.	Great George.	Rodney Street.	Abercromby.	Everton.	Kirkdale.	West Derby.			
Labourers .....	15	3	2	2	13	..	..	..	..	2	1	..	5	4	2	2	1	52
Tradesmen .....	7	..	1	1	5	..	..	..	..	1	..	5	3	2	3	2	..	30
Servants .....	5	1	1	1	2	1	..	..	..	1	..	..	..	..	..	..	..	12
Seamen .....	1	..	..	..	1	..	..	..	1	..	..	..	1	1	..	..	..	5
Soldiers .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Unknown .....	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	4
Males .....	13	2	1	1	11	..	..	..	..	2	1	3	7	4	3	2	1	51
Females .....	15	3	3	3	11	1	..	..	1	2	..	2	3	3	3	2	1	53
Total .....	28	5	4	4	22	1	..	..	1	4	1	5	10	7	6	4	2	104

## ROYAL INFIRMARY.

One Female, wife of a Seaman, residence in Great George Ward.

One Female, a Nurse, residence in Abercromby Ward.

## NORTHERN HOSPITAL.

One Male, a Seaman, residence in Scotland Ward.

## UNION WORKHOUSE HOSPITAL, MILL ROAD.

OCCUPATIONS.	Everton.	West Derby Ward.	Residences outside the Borough.	TOTAL.
Labourers .....	5	5	1	11
Tradesmen.....	2	1	..	3
Professions .....	..	1	..	1
Servants.....	..	1	1	2
Nurse .....	..	1	..	1
Males .....	6	4	1	11
Females .....	1	5	1	7
Total . . . . .	7	9	2	18

## EVERTON HOSPITAL (NETHERFIELD ROAD).

OCCUPATIONS.	WARDS.				Residence outside the Borough.	TOTAL.
	Scotland.	Everton.	West Derby.	South Toxteth.		
Labourers .....	..	..	1	..	..	1
Tradesmen.....	1	2	..	2	..	5
Police Officer .....	..	..	..	..	1	1
Servant .....	..	1	..	..	..	1
Males .....	1	..	..	2	1	4
Females .....	..	3	1	..	..	4
Total .....	1	3	1	2	1	8



Occupations of Persons who (either themselves or members of their family) have died from Typhus and Infantile Fever in the different Wards of the Borough during the Year 1878. (Not included in the foregoing Tables of Deaths in Workhouses and Hospitals.)

OCCUPATIONS.	WARDS.																	TOTAL.
	Scotland.	Vauxhall	St Paul's.	Exchange.	St. Anne's.	Lime Street.	Castle Street.	St. Peter's.	Pitt Street.	Great George.	Rodney Street.	Abercromby.	Everton.	Kirkdale.	West Derby.	North Toxteth.	South Toxteth.	
Labourers .....	14	6	2	1	12	1	1	..	1	2	1	3	16	5	6	1	10	82
Tradesmen .....	7	3	7	1	10	1	..	2	1	2	5	3	27	10	10	9	14	112
Servants .....	..	..	..	1	1	1	..	..	..	1	..	1	1	1	1	..	..	8
Seamen .....	4	..	..	..	..	..	..	1	1	..	..	..	6	4	..	3	..	19
Soldiers .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Professions and Mercantile .....	1	..	..	1	..	..	..	1	..	1	1	1	5	1	3	1	2	18
Nurse .....	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Unknown .....	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Males .....	12	7	4	..	8	3	..	2	..	4	6	4	31	7	11	9	11	119
Females .....	14	2	5	4	15	..	1	2	3	2	1	6	24	15	9	5	15	123
Total .....	26	9	9	4	23	3	1	4	3	6	7	10	55	22	20	14	26	242

#### TOXTETH WORKHOUSE.

Not included in the Mortality of the Borough, being beyond the Municipal Boundaries.

OCCUPATIONS.	WARDS.			Total.
	North Toxteth.	South Toxteth.	Unknown.	
Labourers .....	2	1	..	3
Tradesmen .....	2	5	1	8
Servants .....	..	1	..	1
Seamen .....	..	1	..	1
Unknown .....	1	1	..	2
Males .....	3	5	..	8
Females .....	2	4	1	7
Total .....	5	9	1	15

#### SCARLATINA.

Scarlatina accounted during the year for 947 deaths, or for 347 in the Parish, and 600 in the Out-townships. (The average number of deaths for the preceding ten years was 669). The rate of its mortality was equal to 1·8 per 1,000 of the estimated population. Its rate relatively to deaths

from all causes was 1·9 per cent. in the first quarter, 3·2 in the second, 6·6 in the third, and 11·9 in the fourth quarter of the year; its annual rate relatively to all deaths was 6·1 per cent., and relatively to deaths from zymotic causes 25·6 per cent.

The first of the following tables gives a statistical history of the mortality of Scarlatina during the year 1878; the second is a record of the streets of the Borough wherein 3 or more deaths occurred from that disease.

WARDS.		QUARTERS.								YEAR.		
		March.		June.		Sept.		Dec.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..	5	3	9	6	13	3	19	16	46	28	74
	{ Above 5 years ..	..	2	1	3	2	9	11	7	14	21	35
Vauxhall .....	{ Below 5 years ..	1	..	2	3	6	6	4	2	13	11	24
	{ Above 5 years ..	..	..	1	1	2	2	2	2	5	5	10
St. Paul's .....	{ Below 5 years ..	1	..	..	..	..	1	5	4	6	5	11
	{ Above 5 years ..	..	1	..	..	..	..	3	3	3	4	7
Exchange .....	{ Below 5 years ..	..	..	1	..	2	6	4	5	7	11	18
	{ Above 5 years ..	..	..	..	..	..	..	1	2	1	2	3
St. Anne's .....	{ Below 5 years ..	1	..	1	..	1	4	6	7	9	11	20
	{ Above 5 years ..	1	..	..	..	..	2	4	3	5	5	10
Lime Street .....	{ Below 5 years ..	1	..	..	..	1	3	2	4	4	7	11
	{ Above 5 years ..	..	..	..	..	1	..	2	1	3	1	4
Castle Street .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	1	..	1	..	1
St. Peter's .....	{ Below 5 years ..	..	..	..	..	..	1	1	1	1	2	3
	{ Above 5 years ..	..	..	..	..	..	2	..	1	..	3	3
Pitt Street .....	{ Below 5 years ..	..	..	..	..	1	1	1	2	2	3	5
	{ Above 5 years ..	..	..	..	..	1	..	1	1	2	1	3
Great George .....	{ Below 5 years ..	..	..	..	2	..	..	4	6	4	8	12
	{ Above 5 years ..	..	..	..	..	1	1	1	1	2	2	4
Rodney Street .....	{ Below 5 years ..	1	..	1	..	1	1	8	11	11	12	23
	{ Above 5 years ..	..	..	..	..	..	3	6	7	6	10	16
Abercromby .....	{ Below 5 years ..	..	..	2	..	2	1	6	7	10	8	18
	{ Above 5 years ..	3	1	..	..	3	2	3	..	9	3	12
Parish Workhouse and Hospitals .....	{ Below 5 years ..	..	..	1	..	3	3	1	1	5	4	9
	{ Above 5 years ..	1	..	1	..	4	1	2	2	8	3	11
Out-Township Workhouse and Hospitals .....	{ Below 5 years ..	..	..	1	..	1	1	..	..	2	1	3
	{ Above 5 years ..	..	..	..	..	1	1	4	2	5	3	8
Everton .....	{ Below 5 years ..	4	5	8	2	21	17	25	24	58	48	106
	{ Above 5 years ..	7	2	4	3	4	4	19	11	34	20	54
Kirkdale .....	{ Below 5 years ..	7	4	2	4	10	7	10	18	29	33	62
	{ Above 5 years ..	4	3	3	1	1	5	6	4	14	13	27
West Derby .....	{ Below 5 years ..	1	1	6	1	2	9	14	14	23	25	48
	{ Above 5 years ..	4	..	3	3	3	2	6	8	16	13	29
North Toxteth .....	{ Below 5 years ..	2	3	7	3	12	9	23	22	44	37	81
	{ Above 5 years ..	..	1	2	4	9	4	7	10	18	19	37
South Toxteth .....	{ Below 5 years ..	2	1	11	8	18	14	26	26	57	49	106
	{ Above 5 years ..	1	..	2	4	2	8	8	14	13	26	39
Parish .....	{ Below 5 years ..	10	3	17	11	30	30	61	66	118	110	228
	{ Above 5 years ..	5	4	3	4	14	22	37	30	59	60	119
Out-Townships .....	{ Below 5 years ..	16	14	35	18	64	57	98	104	213	193	406
	{ Above 5 years ..	16	6	14	15	20	24	50	49	100	94	194
Borough .....	{ Below 5 years ..	26	17	52	29	94	87	159	170	331	303	634
	{ Above 5 years ..	21	10	17	19	34	46	87	79	159	154	313



List of Streets in the Borough wherein Three or more Deaths  
from Scarlatina occurred in 1878.

STREETS IN THE PARISH.	HOUSES.		Total.	STREETS IN THE OUT- TOWNSHIPS.	HOUSES.		Total.
	Front.	Court.			Front	Court.	
Ashfield .....	3	...	3	Albion .....	3	..	3
Athol .....	4	...	4	Arlington .....	5	..	5
Baptist .....	3	...	3	Arthur .....	5	..	5
Beau .....	3	2	5	Aspinall .....	5	..	5
Blackstone .....	4	...	4	Beaufort .....	11	..	11
Blandford .....	2	4	6	Beloe .....	3	2	5
Bond .....	2	1	3	Blair .....	2	4	6
Boundary .....	2	1	3	Braemar .....	3	..	3
Brownlow Hill .....	3	1	4	Buckingham .....	5	..	5
Byrom Terrace .....	3	...	3	Cardwell .....	3	..	3
Cazneau .....	3	2	5	China .....	4	..	4
Chatham .....	3	...	3	Claypole .....	3	..	3
Collingwood .....	2	1	3	Clive .....	3	4	7
Dale .....	3	..	3	Conyers .....	4	..	4
Dryden .....	3	...	3	Cornwall .....	3	..	3
Duke .....	3	...	3	Crown .....	4	..	4
Egerton .....	3	...	3	Darnley .....	..	9	9
Epsom .....	3	...	3	Desmond .....	6	..	6
Fontenoy .....	4	1	5	Devonport .....	3	..	3
Freemasons Row .....	...	4	4	Devonshire Place .....	4	2	6
Gildarts Gardens .....	...	3	3	Edgware .....	3	..	3
Highfield .....	...	3	3	Elias .....	4	..	4
Leeds .....	1	2	3	Elstow .....	4	..	4
Marlborough .....	...	3	3	Essex .....	3	..	3
Marybone .....	3	...	3	Gordon .....	7	..	7
Mount View, Rathbone Street .....	...	3	3	Gore .....	2	1	3
Mulberry .....	3	...	3	Grafton .....	4	1	5
Naylor .....	...	3	3	Great Mersey .....	5	..	5
Newsham .....	3	2	5	Gregson .....	5	..	5
Oriel .....	...	3	3	Gwendoline .....	9	..	9
Paul .....	2	2	4	Heriot .....	3	..	3
Primrose Hill .....	...	3	3	Howe .....	6	..	6
Rathbone .....	5	1	6	Hygeia .....	4	..	4
St. Andrew .....	...	3	3	Lamb .....	3	..	3
Saltney .....	5	...	5	Latham .....	3	..	3
Scotland Road .....	5	1	6	Leadenhall .....	3	..	3
Soho .....	3	1	4	Llanrwst .....	..	3	3
Taliesin .....	3	...	3	Lorton .....	..	3	3
Telary .....	3	...	3	Low Hill .....	..	3	3
Upper Frederick .....	1	2	3	Loxdale .....	3	..	3
Upper Milk .....	2	1	3	Luther .....	4	..	4
				Mann .....	5	4	9
				Mill .....	6	1	7
				Moville .....	3	..	3
				Netherfield Road North .....	5	..	5
				Northbrook .....	5	..	5
				Northumberland .....	4	..	4
				Opie .....	3	..	3
				Park Place .....	2	1	3
				Park Road .....	3	1	4
				Potter .....	4	..	4
				Premier .....	3	..	3
				Prince Edwin .....	2	1	3
				Prince Edwin Lane .....	3	..	3
				Prophet .....	2	3	5
				Pyramid .....	3	..	3
				Seacome .....	4	..	4
				Southampton .....	3	..	3
				Squires .....	6	..	6
				Stancliffe .....	3	..	3
				Wavertree Road .....	4	..	4
				Wellington Road .....	6	..	6
				Westminster Road .....	5	..	5
				Whitefield Lane .....	5	..	5
				Wolfe .....	7	1	8



## MEASLES

Occasioned 444 deaths, of which 269 occurred in the Parish, and 175 in the Out-Townships. (The average number of deaths for the preceding ten years was 408.) Its percentage death-rate relatively to deaths from all causes was 4·9 in the first quarter of the year, 5·6 in the second, 0·7 in the third, and 0·6 in the fourth. Its annual percentage rate relatively to deaths from all causes was 2·8, and relatively to deaths from Zymotic causes 12·0.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..		7	11	22	19	1	2	1	2	31	34	65
	{ Above 5 years ..		2	..	1	1	..	..	..	..	3	1	4
Vauxhall .....	{ Below 5 years ..		13	15	15	23	2	1	..	1	30	40	70
	{ Above 5 years ..		1	5	1	2	..	..	..	..	2	7	9
St. Paul's .....	{ Below 5 years ..		10	2	10	12	..	1	..	..	20	15	35
	{ Above 5 years ..		2	1	2	2	..	..	..	..	4	3	7
Exchange .....	{ Below 5 years ..		2	1	6	4	1	..	..	..	9	5	14
	{ Above 5 years ..		..	1	..	..	..	..	..	..	..	1	1
St. Anne's .....	{ Below 5 years ..		7	7	4	2	..	..	..	..	11	9	20
	{ Above 5 years ..		1	..	..	..	..	..	..	..	1	..	1
Lime Street .....	{ Below 5 years ..		2	1	2	4	..	..	..	..	4	5	9
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Castle Street .....	{ Below 5 years ..		1	..	..	1	..	..	..	..	1	1	2
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
St. Peter's .....	{ Below 5 years ..		..	..	..	..	1	..	..	..	1	..	1
	{ Above 5 years ..		1	..	..	..	..	..	..	..	1	..	1
Pitt Street .....	{ Below 5 years ..		2	..	..	..	..	..	..	..	2	..	2
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Great George .....	{ Below 5 years ..		2	..	..	1	..	..	1	..	3	1	4
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Rodney Street.....	{ Below 5 years ..		..	..	..	1	3	..	..	1	3	2	5
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Abercromby .....	{ Below 5 years ..		..	4	2	2	..	..	..	..	2	6	8
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Parish Workhouse and Hospitals .....	{ Below 5 years ..		7	3	..	..	..	..	..	..	7	3	10
	{ Above 5 years ..		1	..	..	..	..	..	..	..	1	..	1
Out-Township Workhouse and Hospitals..	{ Below 5 years ..		..	..	..	..	..	..	5	3	5	3	8
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Everton .....	{ Below 5 years ..		9	11	11	3	4	3	2	1	26	18	44
	{ Above 5 years ..		..	..	..	..	..	..	..	1	..	1	1
Kirkdale .....	{ Below 5 years ..		7	12	3	1	1	..	..	2	11	15	26
	{ Above 5 years ..		1	1	..	1	..	..	..	..	1	2	3
West Derby.....	{ Below 5 years ..		8	7	6	5	1	..	1	1	16	13	29
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
North Toxteth .....	{ Below 5 years ..		3	3	3	4	1	..	..	..	7	7	14
	{ Above 5 years ..		1	1	1	..	..	..	..	..	2	1	3
South Toxteth .....	{ Below 5 years ..		4	7	12	11	3	4	4	1	23	23	46
	{ Above 5 years ..		..	..	1	..	..	..	..	..	1	..	1
Parish .....	{ Below 5 years ..		53	44	61	69	8	4	2	4	124	121	245
	{ Above 5 years ..		8	7	4	5	..	..	..	..	12	12	24
Out-Townships .....	{ Below 5 years ..		31	40	35	24	10	7	12	8	88	79	167
	{ Above 5 years ..		2	2	2	1	..	..	..	1	4	4	8
Borough .....	{ Below 5 years ..		84	84	96	93	18	11	14	12	212	200	412
	{ Above 5 years ..		10	9	6	6	..	..	..	1	16	16	32

## DIARRHŒA

Accounted for 979 deaths, or for 437 in the Parish, and 542 in the Out-townships. (The average number of deaths for the preceding ten years was 931). Its percentage death-rate relatively to deaths from all causes was 1·3 in the first quarter of the year, 2·3 in the second, 19·7 in the third, and 1·5 in the fourth quarter. Its annual percentage rate relatively to deaths from all causes was 6·3, and relatively to deaths from Zymotic causes 26·5.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..		2	4	10	6	63	57	7	5	82	72	154
	{ Above 5 years ..		..	..	..	3	4	3	..	..	4	6	10
Vauxhall .....	{ Below 5 years ..		..	1	1	4	23	32	1	3	25	40	65
	{ Above 5 years ..		..	..	1	..	..	1	..	..	1	1	2
St. Paul's .....	{ Below 5 years ..		..	1	1	..	11	5	2	1	14	7	21
	{ Above 5 years ..		..	..	..	..	..	..	..	1	..	1	1
Exchange .....	{ Below 5 years ..		1	..	..	1	6	2	..	..	7	3	10
	{ Above 5 years ..		..	..	..	..	..	1	..	..	..	1	1
St. Anne's .....	{ Below 5 years ..		2	3	4	1	12	21	..	1	18	26	44
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Lime Street .....	{ Below 5 years ..		1	..	..	2	4	3	..	1	5	6	11
	{ Above 5 years ..		..	1	..	..	..	1	..	..	..	2	2
Castle Street .....	{ Below 5 years ..		1	..	..	..	..	..	..	..	1	..	1
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
St. Peter's .....	{ Below 5 years ..		..	1	1	..	..	2	1	1	2	4	6
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Pitt Street .....	{ Below 5 years ..		1	1	..	1	3	4	..	..	4	6	10
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Great George .....	{ Below 5 years ..		..	1	1	..	7	11	1	..	9	12	21
	{ Above 5 years ..		..	1	..	..	..	1	..	..	..	2	2
Rodney Street.....	{ Below 5 years ..		1	..	..	1	9	5	1	1	11	7	18
	{ Above 5 years ..		..	..	..	..	..	1	..	..	..	1	1
Abercromby.....	{ Below 5 years ..		1	..	1	2	10	13	1	1	13	16	29
	{ Above 5 years ..		..	1	..	..	..	1	..	..	..	2	2
Parish Workhouse and Hospitals .....	{ Below 5 years ..		..	..	2	1	..	1	..	2	2	4	6
	{ Above 5 years ..		4	..	..	2	1	7	3	3	8	12	20
Out-Township Workhouse and Hospitals..	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		..	..	..	..	..	..	..	..	..	..	..
Everton .....	{ Below 5 years ..		4	3	7	4	60	64	3	1	74	72	146
	{ Above 5 years ..		2	3	..	1	2	3	..	3	4	10	14
Kirkdale .....	{ Below 5 years ..		1	..	1	..	49	28	2	3	53	31	84
	{ Above 5 years ..		1	..	1	1	2	2	1	1	5	4	9
West Derby.....	{ Below 5 years ..		2	3	3	4	36	41	2	..	43	48	91
	{ Above 5 years ..		..	..	..	..	2	2	..	..	2	2	4
North Toxteth .....	{ Below 5 years ..		..	..	4	2	51	41	1	2	56	45	101
	{ Above 5 years ..		1	..	..	1	2	1	..	..	3	2	5
South Toxteth.....	{ Below 5 years ..		..	..	3	3	32	36	6	..	41	39	80
	{ Above 5 years ..		..	..	2	..	2	3	1	..	5	3	8
Parish .....	{ Below 5 years ..		10	12	21	19	148	156	14	16	193	203	396
	{ Above 5 years ..		4	3	1	5	5	16	3	4	13	28	41
Out-Townships .....	{ Below 5 years ..		7	6	18	13	228	210	14	6	267	235	502
	{ Above 5 years ..		4	3	3	3	10	11	2	4	19	21	40
Borough .....	{ Below 5 years ..		17	18	39	32	376	366	28	22	460	438	898
	{ Above 5 years ..		8	6	4	8	15	27	5	8	32	49	81



List of Streets in the Borough wherein Three or more Deaths from  
Diarrhœa occurred during the Year 1878.

STREETS IN THE PARISH.	HOUSES.		Total.	STREETS IN THE OUT- TOWNSHIPS.	HOUSES.		Total.
	Front.	Court.			Front.	Court.	
Addison .....	..	4	4	Arkwright .....	6	1	7
Arley .....	3	4	7	Beaufort .....	8	1	9
Beau .....	3	..	3	Bembridge .....	3	..	3
Benledi .....	3	..	3	Boundary .....	2	1	3
Birchfield .....	3	..	3	Braemar .....	3	..	3
Blackstock .....	..	3	3	Brasenose Road .....	3	..	3
Blenheim .....	..	4	4	Brunswick Road .....	3	..	3
Bolton .....	2	1	3	Cockerell .....	3	..	3
Bond .....	1	2	3	Combermere .....	1	2	3
Brownlow .....	..	3	3	Conway .....	3	..	3
Cavendish .....	4	..	4	Dalton .....	1	2	3
Freemasons Row .....	1	2	3	Darnley .....	2	2	4
Furlong .....	2	1	3	Elias .....	5	..	5
Gascoyne .....	2	1	3	Evelyn .....	3	..	3
Gilbert .....	3	..	3	Grafton .....	4	4	8
Gildarts Gardens .....	2	2	4	Highgate .....	2	2	4
Great Howard .....	3	..	3	Lamb .....	3	..	3
Hedley .....	2	1	3	Lance .....	3	..	3
Hornby .....	2	3	5	Langsdale .....	4	..	4
Maguire .....	..	6	6	Luther .....	3	..	3
Marybone .....	3	..	3	Maitland .....	3	..	3
Naylor .....	1	3	4	Mann .....	1	4	5
Paul .....	1	3	4	Micawber .....	3	..	3
Plumbe .....	2	1	3	Mill .....	2	1	3
Portland .....	3	..	3	North Hill .....	3	..	3
Rathbone .....	2	2	4	Park .....	3	..	3
Raymond .....	7	1	8	Park Road .....	2	1	3
Rose Place .....	5	1	6	Prince Edwin .....	1	3	4
Slade .....	..	3	3	Prince William .....	..	3	3
Stockdale .....	1	2	3	Reading .....	5	..	5
Summer Seat .....	4	..	4	St. James Place .....	1	2	3
Upper Frederick .....	2	3	5	Salisbury .....	2	3	5
Vauxhall Road .....	3	..	3	Warwick .....	3	..	3
Wilbraham .....	3	..	3	Westminster Road .....	3	..	3
				Wolfe .....	7	..	7



## DIARRHOEA IN DATES OF DEATH, 1878.

DATE. June.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in Inches.	Hours.	Mean Daily Velocity in Miles.	DIRECTION.
1	..	30·006	54·8	..	..	207	SE & E
2	..	29·975	55·4	..	..	290	SE
3	4	29·905	57·2	0·548	5·1	132	SE & NW
4	..	29·737	51·6	0·353	6·4	349	ENE
5	1	30·055	53·2	..	..	178	NW & Var.
6	..	30·177	57·4	0·006	0·3	118	WNW
7	..	30·041	60·0	..	..	272	SSE
8	2	29·656	59·5	0·444	3·8	310	SE
9	1	29·458	57·3	0·655	4·0	259	SSW
10	1	29·582	54·8	0·197	6·3	472	SW & W
11	1	29·391	56·9	0·405	7·4	429	SE & Var.
12	1	29·450	53·2	0·270	4·5	519	W & SW
13	2	29·816	51·5	..	..	259	E
14	3	29·928	53·1	0·020	0·9	220	E & SE
15	3	29·842	54·3	0·006	0·3	169	SE
16	4	29·817	55·2	0·007	0·4	202	WNW
17	1	29·841	54·3	..	..	291	W
18	3	29·887	57·1	..	..	153	WNW
19	1	29·984	58·3	..	..	81	NW
20	..	30·015	61·8	0·040	2·1	116	SE & Var.
21	2	30·060	57·4	0·005	0·7	120	SE & Var.
22	2	30·155	61·2	..	..	104	NNW & Var.
23	2	30·082	61·5	0·005	1·0	99	NNW
24	..	30·070	65·5	..	..	106	NW & Var.
25	..	30·148	67·3	..	..	70	NW & Var.
26	..	30·131	74·3	..	..	122	SE & Var.
27	2	30·058	74·4	..	..	199	SE & E
28	1	29·930	68·9	..	..	221	E
29	3	29·908	63·0	..	..	302	ENE
30	2	29·891	61·3	..	..	183	ENE

## DIARRHŒA IN DATES OF DEATH, 1878.

DATE. July.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in Inches.	Hours.	Mean Daily Velocity in Miles.	DIRECTION.
1	2	29.928	60.7	..	..	232	ENE
2	3	29.914	57.0	..	..	190	NE & NW
3	4	29.979	56.6	..	..	296	NW
4	2	30.092	59.0	..	..	244	W
5	3	29.990	65.2	..	..	460	W & SW
6	5	29.945	63.4	..	..	483	W
7	6	29.999	59.9	..	..	340	W
8	2	30.113	57.8	..	..	283	WNW
9	7	29.995	58.7	0.066	0.3	359	W
10	7	29.900	57.7	..	..	548	W
11	4	29.863	57.4	..	..	587	W
12	9	29.890	57.0	..	..	286	WNW
13	8	29.997	60.7	..	..	235	WNW
14	8	30.125	59.0	..	..	384	WNW
15	9	30.224	60.8	..	..	357	WNW
16	9	30.293	63.0	..	..	251	W
17	5	30.318	64.4	..	..	256	WNW
18	7	30.368	64.2	0.010	0.3	310	WNW
19	7	30.298	67.9	..	..	140	NW
20	11	30.130	68.3	..	..	162	WNW & SE
21	9	30.054	71.8	..	..	98	N & Var.
22	24	30.064	71.4	...	..	202	E
23	14	29.964	65.6	0.044	0.7	223	ESE
24	12	29.701	63.8	0.810	4.6	268	ESE & W
25	16	29.675	57.8	0.145	2.6	362	W
26	16	29.772	59.7	..	..	244	W & NW
27	16	29.914	59.4	..	..	384	W & NW
28	20	29.975	60.4	..	..	165	N & Var.
29	15	30.060	60.4	..	..	173	NW & Var.
30	22	30.243	60.4	..	..	124	NW & NE
31	18	30.370	61.7	..	..	135	E & SE

## DIARRHŒA IN DATES OF DEATH, 1878.

DATE. August.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in Inches.	Hours.	Mean Daily Velocity in Miles.	DIRECTION.
1	25	30.283	62.7	..	..	180	SE & Var.
2	18	30.074	66.5	..	..	284	ENE
3	11	29.865	62.5	0.166	4.2	358	NE
4	15	29.776	62.6	0.430	3.2	284	ENE
5	18	29.816	63.8	0.220	2.3	364	ESE
6	17	29.701	65.3	0.080	0.8	276	ESE
7	21	29.718	64.8	0.047	0.6	247	SW
8	10	29.942	60.5	..	..	340	W & SW
9	13	30.037	64.6	0.570	11.3	215	SE
10	9	29.690	61.1	0.205	2.2	364	SSE & W
11	13	29.690	62.2	0.053	2.8	326	W & Var.
12	13	29.483	62.0	..	..	404	W & SW
13	17	29.490	60.6	1.031	18.4	340	W & SW
14	8	29.373	61.5	0.020	0.8	390	W
15	10	29.505	61.0	0.014	0.6	218	W & S
16	22	29.422	58.9	..	..	369	W & Var.
17	18	29.745	61.8	0.034	1.2	621	W & SW
18	10	29.984	61.1	..	..	333	W & NW
19	6	29.918	61.1	...	..	152	N & Var.
20	17	29.945	60.4	..	..	253	ESE
21	7	30.003	61.1	..	..	268	ESE
22	8	29.923	60.4	0.138	2.3	403	E
23	5	29.638	57.6	0.394	7.9	578	ENE
24	9	29.505	59.6	..	..	263	NE & W
25	6	29.497	59.6	..	..	148	W & NW
26	13	29.495	63.5	..	..	123	SE & Var.
27	9	29.563	61.3	0.190	4.4	176	S & SE
28	1	29.656	59.5	0.184	0.7	220	W & S
29	3	29.578	58.9	0.180	1.8	277	E & SE
30	10	29.383	61.5	0.140	2.7	362	W & Var.
31	8	29.633	60.4	0.154	0.9	615	W & NW



## DIARRHŒA IN DATES OF DEATH, 1878.

DATE. Sept.	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in inches.	Hours.	Mean Daily Velocity in Miles.	DIRECTION.
1	5	30·043	56·9	..	..	526	W
2	4	30·202	62·7	..	..	228	W & SW
3	3	30·155	60·8	..	..	247	W & SW
4	10	30·118	63·5	..	..	178	E & SE
5	8	30·004	63·3	..	..	141	E & SE
6	8	30·051	64·2	..	..	174	W & SW
7	3	30·104	62·4	..	..	112	NW & SW
8	8	30·040	58·8	0·020	0·3	213	W & NW
9	4	30·030	58·4	0·039	0·9	305	NW & SW
10	4	30·228	56·7	..	..	132	NW & Var.
11	3	30·219	62·0	0·106	1·5	155	SSE & NW
12	2	30·127	56·3	0·020	0·7	398	WNW & SW
13	6	30·114	56·8	..	..	269	WNW & SW
14	3	29·938	61·1	..	..	245	W & SW
15	5	29·510	56·9	0·244	2·5	671	S & SW
16	2	29·674	57·5	0·034	0·3	1160	W
17	7	29·793	60·1	0·568	6·6	599	SW
18	2	29·601	51·6	0·172	2·5	713	W
19	1	29·730	51·4	0·269	3·9	696	W & SW
20	3	29·945	53·3	..	..	286	W & NW
21	2	30 111	52·6	0·010	0·3	213	WNW & S
22	4	29·708	51·9	1·387	12·9	302	SE
23	4	29·444	50·5	0·080	2·4	323	W
24	2	29·643	53·4	0·231	4·0	170	W & SW
25	3	29·608	53·2	0·450	5·6	393	S & WNW
26	4	29·896	53·3	0·040	1·7	482	W & SW
27	4	30·007	56·7	0·028	1·0	292	W
28	2	30·040	59·0	0·034	0·5	300	W & SW
29	1	29·968	58·6	0·294	2·6	160	SE
30	3	29·699	53·0	0·120	3·1	551	W & Var.

## DIARRHOEA IN DATES OF DEATH, 1878.

DATE. October	No. of Deaths.	Mean Reading of Barometer.	Mean Tempe- rature.	RAIN.		WIND.	
				Amount in Inches.	Hours	Mean Daily Velocity in miles.	DIRECTION.
1	1	30.052	44.4	0.428	4.6	273	E
2	5	30.250	50.5	0.010	0.7	292	SE & S
3	1	30.145	57.1	..	..	180	S & Var.
4	..	30.067	56.4	0.030	1.4	278	SE & S
5	..	30.000	60.5	0.010	0.2	350	SE
6	2	29.667	60.2	0.077	1.8	384	SE
7	2	29.362	60.0	0.008	0.3	461	SE
8	2	29.195	57.5	0.060	1.0	488	SSE & SW
9	3	29.281	56.6	0.330	5.8	444	SE & S
10	1	29.075	55.2	0.285	5.9	771	SE & WSW
11	..	29.780	51.4	..	..	818	W
12	..	30.200	51.0	..	..	304	W
13	1	30.168	52.4	..	..	324	SE & S
14	1	30.039	50.6	..	..	421	SE
15	..	30.033	51.8	..	..	191	E & SE
16	1	30.046	49.3	..	..	197	E & SE
17	1	29.962	51.6	..	..	216	SE
18	4	29.853	51.9	..	..	382	E & SE
19	..	29.770	53.0	0.181	5.3	355	E & SE
20	2	29.720	54.8	0.024	0.5	304	SE & S
21	1	29.254	49.6	0.018	2.0	423	S & SW
22	..	29.120	47.9	0.170	1.6	421	SW & W
23	..	29.355	48.5	0.070	1.7	627	SW & W
24	1	29.246	46.9	0.111	5.4	410	SW & W
25	..	29.114	45.8	0.061	1.8	434	SW & W
26	..	29.115	45.6	...	..	163	SE & Var.
27	2	29.537	47.3	0.114	1.8	266	NW & N
28	1	29.617	46.5	0.171	1.1	852	W & NW
29	..	29.777	42.2	0.145	4.1	538	NW
30	..	29.713	43.7	0.038	0.5	585	NW & N
31	1	29.913	40.2	0.034	1.9	236	N

## HOOPING COUGH

Occasioned 422 deaths, or 193 in the Parish and 229 in the Out-Townships. (The average number of deaths for the preceding ten years was 466). Its percentage death-rate relatively to deaths from all causes was 4·9 in the first quarter of the year, 2·9 in the second, 2·0 in the third, and 1·2 in the fourth; its percentage rate relatively to deaths from all causes was 2·7, and relatively to deaths from Zymotic causes 11·4.

## DEATHS FROM HOOPING COUGH.

WARDS.		QUARTERS.								YEAR.		
		March.		June.		Sept.		Dec.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .. . . . .	{ Below 5 years ..	10	14	10	11	11	9	2	1	33	35	68
	{ Above 5 years ..	2	..	..	2	1	2	..	..	3	4	7
Vauxhall .. . . . .	{ Below 5 years ..	2	1	..	1	2	1	3	1	7	4	11
	{ Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1
St. Paul's .. . . . .	{ Below 5 years ..	2	2	2	2	..	3	1	1	5	8	13
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange .. . . . .	{ Below 5 years ..	1	1	..	2	..	..	..	..	1	3	4
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Anne's .. . . . .	{ Below 5 years ..	1	4	1	..	..	1	2	3	4	8	12
	{ Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1
Lime Street .. . . . .	{ Below 5 years ..	4	5	..	2	..	..	..	2	4	9	13
	{ Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1
Castle Street .. . . . .	{ Below 5 years ..	..	2	..	..	..	..	..	..	..	2	2
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's .. . . . .	{ Below 5 years ..	1	1	1	..	..	..	..	..	2	1	3
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street .. . . . .	{ Below 5 years ..	1	3	..	2	..	..	..	..	1	5	6
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George .. . . . .	{ Below 5 years ..	2	4	1	3	..	..	..	..	3	7	10
	{ Above 5 years ..	..	2	..	..	..	..	..	..	..	2	2
Rodney Street .. . . . .	{ Below 5 years ..	7	5	1	..	..	..	1	..	9	5	14
	{ Above 5 years ..	1	3	..	..	..	..	..	..	1	3	4
Abercromby .. . . . .	{ Below 5 years ..	9	5	..	..	..	..	..	1	9	6	15
	{ Above 5 years ..	1	..	..	..	..	..	..	..	1	..	1
Parish Workhouse and Hospitals .. . . . .	{ Below 5 years ..	1	3	1	..	..	..	..	..	2	3	5
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Out-Township Workhouse and Hospitals .. . . . .	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	1	1
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Everton .. . . . .	{ Below 5 years ..	10	11	11	15	9	13	5	8	35	47	82
	{ Above 5 years ..	..	1	..	..	..	1	..	1	..	3	3
Kirkdale .. . . . .	{ Below 5 years ..	6	8	3	5	5	3	1	2	15	18	33
	{ Above 5 years ..	1	..	..	1	..	..	..	..	1	1	2
West Derby .. . . . .	{ Below 5 years ..	3	9	2	6	3	4	3	1	11	20	31
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
North Toxteth .. . . . .	{ Below 5 years ..	12	10	4	1	4	5	1	1	21	17	38
	{ Above 5 years ..	..	..	1	1	..	..	..	1	1	2	3
South Toxteth .. . . . .	{ Below 5 years ..	9	5	5	5	1	1	3	5	18	16	34
	{ Above 5 years ..	1	..	1	..	..	..	..	..	2	..	2
Parish .. . . . .	{ Below 5 years ..	41	50	17	23	13	14	9	9	80	96	176
	{ Above 5 years ..	4	7	..	3	1	2	..	..	5	12	17
Out-Townships .. . . . .	{ Below 5 years ..	40	44	25	32	22	26	13	17	100	119	219
	{ Above 5 years ..	2	1	2	2	..	1	..	2	4	6	10
Borough .. . . . .	{ Below 5 years ..	81	94	42	55	35	40	22	26	180	215	395
	{ Above 5 years ..	6	8	2	5	1	3	..	2	9	18	27



## DEATHS FROM CROUP.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..	3	3	2	3	1	2	8	8	14	16	30	
	{ Above 5 years ..	..	..	..	..	..	..	..	2	..	2	2	
Vauxhall .....	{ Below 5 years ..	2	..	1	1	2	1	..	3	5	5	10	
	{ Above 5 years ..	..	..	1	..	..	..	1	..	2	..	2	
St. Paul's .....	{ Below 5 years ..	..	..	..	1	..	..	..	..	..	1	1	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
Exchange .....	{ Below 5 years ..	3	1	1	1	..	1	1	1	5	4	9	
	{ Above 5 years ..	1	..	..	..	..	..	..	..	1	..	1	
St. Anne's .....	{ Below 5 years ..	1	..	2	1	1	1	1	1	5	3	8	
	{ Above 5 years ..	1	..	..	..	..	1	..	..	1	1	2	
Lime Street .....	{ Below 5 years ..	1	1	..	..	..	..	1	..	2	1	3	
	{ Above 5 years ..	..	..	..	..	..	..	..	1	..	1	1	
Castle Street .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
St. Peter's .....	{ Below 5 years ..	..	..	..	1	..	..	1	..	1	1	2	
	{ Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1	
Pitt Street .....	{ Below 5 years ..	1	..	2	1	..	1	1	1	4	3	7	
	{ Above 5 years ..	..	1	..	..	..	..	..	..	..	1	1	
Great George .....	{ Below 5 years ..	1	..	1	2	..	..	1	1	3	3	6	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
Rodney Street .....	{ Below 5 years ..	..	..	..	2	..	..	1	..	1	2	3	
	{ Above 5 years ..	..	..	..	..	2	..	1	..	3	..	3	
Abercromby .....	{ Below 5 years ..	2	1	..	..	1	1	..	..	3	2	5	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
Parish Workhouse and Hospitals .....	{ Below 5 years ..	1	..	2	3	..	1	..	..	3	4	7	
	{ Above 5 years ..	..	..	1	..	..	..	..	..	1	..	1	
Out-Township Workhouse and Hospitals .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
Everton .....	{ Below 5 years ..	5	3	2	3	2	5	3	1	12	12	24	
	{ Above 5 years ..	2	1	..	1	1	..	..	..	3	2	5	
Kirkdale .....	{ Below 5 years ..	3	4	3	3	4	2	1	..	11	9	20	
	{ Above 5 years ..	1	..	..	..	..	..	..	..	1	..	1	
West Derby .....	{ Below 5 years ..	5	3	3	3	..	1	6	1	14	8	22	
	{ Above 5 years ..	..	1	..	..	1	..	1	1	2	2	4	
North Toxteth .....	{ Below 5 years ..	4	4	3	2	1	1	2	2	10	9	19	
	{ Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1	
South Toxteth .....	{ Below 5 years ..	..	2	2	1	1	2	1	..	4	5	9	
	{ Above 5 years ..	..	..	..	..	..	..	1	..	1	..	1	
Parish .....	{ Below 5 years ..	15	6	11	16	5	8	15	15	46	45	91	
	{ Above 5 years ..	2	2	2	..	2	1	2	3	8	6	14	
Out-Townships .....	{ Below 5 years ..	17	16	13	12	8	11	13	4	51	43	94	
	{ Above 5 years ..	3	2	..	2	2	..	2	1	7	5	12	
Borough .....	{ Below 5 years ..	32	22	24	28	13	19	28	19	97	88	185	
	{ Above 5 years ..	5	4	2	2	4	1	4	4	15	11	26	

## DEATHS FROM DIPHTHERIA.

WARDS.		QUARTERS.								YEAR.		
		March.		June.		Sept.		Dec.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	{ Below 5 years ..	1	2	..	..	..	..	1	2	2	4	6
	{ Above 5 years ..	..	..	1	1	1	..	..	..	2	1	3
Vauxhall	{ Below 5 years ..	..	..	..	1	..	..	..	..	..	1	1
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Paul's	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Exchange	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Anne's	{ Below 5 years ..	..	..	..	..	..	..	1	..	1	..	1
	{ Above 5 years ..	..	..	..	..	..	1	..	..	..	1	1
Lime Street	{ Below 5 years ..	..	..	..	..	1	..	2	..	3	..	3
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1
St. Peter's	{ Below 5 years ..	..	..	..	..	1	..	..	..	1	..	1
	{ Above 5 years ..	..	..	..	..	..	..	1	..	..	1	1
Pitt Street	{ Below 5 years ..	..	2	..	..	..	..	..	..	..	2	2
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Great George	{ Below 5 years ..	..	2	2	..	..	..	..	..	2	2	4
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Rodney Street	{ Below 5 years ..	..	..	..	..	..	1	..	..	..	1	1
	{ Above 5 years ..	..	..	1	..	..	1	1	1	2	2	4
Abercromby	{ Below 5 years ..	..	..	1	..	..	..	1	..	2	..	2
	{ Above 5 years ..	..	..	..	..	..	..	1	..	1	..	1
Parish Workhouse and Hospitals	{ Below 5 years ..	2	..	1	..	..	..	..	..	3	..	3
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Out-Township Workhouse and Hospitals.	{ Below 5 years ..	..	..	..	..	..	1	..	..	..	1	1
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Everton	{ Below 5 years ..	..	1	1	1	2	..	..	..	3	2	5
	{ Above 5 years ..	1	1	1	..	1	..	..	1	3	2	5
Kirkdale	{ Below 5 years ..	1	2	1	2	..	..	..	1	2	5	7
	{ Above 5 years ..	..	..	..	1	..	..	1	..	1	1	2
West Derby	{ Below 5 years ..	2	1	2	..	4	..	..	1	8	2	10
	{ Above 5 years ..	1	..	..	..	..	..	3	1	4	1	5
North Toxteth	{ Below 5 years ..	2	1	1	1	..	1	..	1	3	4	7
	{ Above 5 years ..	2	..	..	1	1	2	2	..	5	3	8
South Toxteth	{ Below 5 years ..	..	..	1	1	..	..	..	1	1	2	3
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Parish	{ Below 5 years ..	3	6	4	1	2	1	5	2	14	10	24
	{ Above 5 years ..	..	..	2	2	1	2	2	2	5	6	11
Out-Townships	{ Below 5 years ..	5	5	6	5	6	2	..	4	17	16	33
	{ Above 5 years ..	4	1	1	2	2	2	6	2	13	7	20
Borough	{ Below 5 years ..	8	11	10	6	8	3	5	6	31	26	57
	{ Above 5 years ..	4	1	3	4	3	4	8	4	18	13	31

## OTHER ZYMOTICS.

Under the term of other Zymotics are included:—Chicken Pox, Cholera, Dysentery, Erysipelas, Syphilis, Thrush, Puerperal Fever, Rheumatic Fever, Quinsy, Mumps, and Purpura.

WARDS.		QUARTERS.								YEAR.		
		March.		June.		Sept.		Dec.				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..	1	2	3	4	1	2	3	4	8	12	20
	{ Above 5 years ..	..	..	2	1	1	1	2	..	5	2	7
Vauxhall .....	{ Below 5 years ..	..	..	..	..	1	..	2	..	3	..	3
	{ Above 5 years ..	1	1	1	..	..	..	..	..	2	1	3
St. Paul's .....	{ Below 5 years ..	1	..	2	1	..	..	1	..	4	1	5
	{ Above 5 years ..	..	..	..	..	1	2	..	1	1	3	4
Exchange .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	1	..	..	..	1	1
St. Anne's .....	{ Below 5 years ..	2	1	1	..	3	3	2	2	8	6	14
	{ Above 5 years ..	1	2	1	1	1	..	..	2	3	5	8
Lime Street .....	{ Below 5 years ..	..	1	..	..	..	..	..	..	..	1	1
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Castle Street .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
St. Peter's .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..
Pitt Street .....	{ Below 5 years ..	..	..	..	..	1	..	..	..	1	..	1
	{ Above 5 years ..	..	..	..	..	1	..	..	..	1	..	1
Great George .....	{ Below 5 years ..	..	..	..	..	..	1	..	..	..	1	1
	{ Above 5 years ..	..	..	..	1	1	..	..	..	1	1	2
Rodney Street .....	{ Below 5 years ..	2	..	..	1	1	1	3	..	6	2	8
	{ Above 5 years ..	1	1	..	..	..	1	1	..	2	2	4
Abercromby .....	{ Below 5 years ..	1	..	2	..	..	..	..	..	3	..	3
	{ Above 5 years ..	1	..	..	1	..	..	..	..	1	1	2
Parish Workhouse and Hospitals .....	{ Below 5 years ..	1	2	1	1	1	2	1	..	4	5	9
	{ Above 5 years ..	2	3	2	1	1	..	2	1	7	5	12
Out-Township Workhouse and Hospitals.	{ Below 5 years ..	..	..	1	2	..	..	..	..	1	2	3
	{ Above 5 years ..	..	..	2	..	1	..	1	..	4	..	4
Everton .....	{ Below 5 years ..	3	2	1	3	3	2	3	3	10	10	20
	{ Above 5 years ..	1	2	..	3	1	2	1	2	3	9	12
Kirkdale .....	{ Below 5 years ..	1	3	..	2	..	1	1	2	2	8	10
	{ Above 5 years ..	..	..	..	1	1	1	1	..	2	2	4
West Derby .....	{ Below 5 years ..	1	3	1	1	6	4	2	5	10	13	23
	{ Above 5 years ..	1	7	1	1	1	2	1	1	4	11	15
North Toxteth .....	{ Below 5 years ..	2	..	..	1	1	4	2	1	5	6	11
	{ Above 5 years ..	1	1	1	1	1	..	3	1	6	3	9
South Toxteth .....	{ Below 5 years ..	1	..	1	..	3	..	1	..	6	..	6
	{ Above 5 years ..	..	..	..	..	1	..	..	2	1	2	3
Parish .....	{ Below 5 years ..	8	6	9	7	8	9	12	6	37	28	65
	{ Above 5 years ..	6	7	6	5	6	5	5	4	23	21	44
Out-Townships .....	{ Below 5 years ..	8	8	4	9	13	11	9	11	34	39	73
	{ Above 5 years ..	3	10	4	6	6	5	7	6	20	27	47
Borough .....	{ Below 5 years ..	16	14	13	16	21	20	21	17	71	67	138
	{ Above 5 years ..	9	17	10	11	12	10	12	10	43	48	91



## TUBERCULAR DISEASES.

This group of diseases includes Phthisis, Scrofula, Tabes Mesenterica, and Hydrocephalus. They occasioned 2,078 deaths in the Borough of Liverpool during the year 1878, of which 989 occurred in the Parish, and 1,089 in the Out-Townships. (The average number of deaths for the preceding ten years was 2,073). The death-rate was 3·9 per 1,000 of the estimated population; their percentage death-rate relatively to deaths from all causes was 13·3.

## DEATHS FROM PHTHISIS.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..		1	..	1	1	..	..	..	1	2	2	4
	{ Above 5 years ..		15	26	18	14	18	18	17	24	68	82	150
Vauxhall .....	{ Below 5 years ..		..	..	1	..	..	1	..	..	1	1	2
	{ Above 5 years ..		10	8	8	5	1	1	2	1	21	15	36
St. Paul's .....	{ Below 5 years ..		..	..	1	1	..	..	..	..	1	1	2
	{ Above 5 years ..		4	5	3	5	2	2	..	2	9	14	23
Exchange .....	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		4	4	4	2	1	2	2	2	11	10	21
St. Anne's .....	{ Below 5 years ..		..	..	..	..	..	1	1	1	1	2	3
	{ Above 5 years ..		5	4	7	9	10	7	5	9	27	29	56
Lime Street .....	{ Below 5 years ..		..	1	1	..	..	..	..	..	1	1	2
	{ Above 5 years ..		4	7	4	..	3	3	3	7	14	17	31
Castle Street .....	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		..	..	1	..	..	1	..	..	1	1	2
St. Peter's .....	{ Below 5 years ..		..	..	..	..	1	..	..	..	1	..	1
	{ Above 5 years ..		2	..	5	1	1	..	3	2	11	3	14
Pitt Street .....	{ Below 5 years ..		..	..	..	..	..	..	1	..	1	..	1
	{ Above 5 years ..		2	3	..	2	2	..	3	4	7	9	16
Great George .....	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		4	2	2	2	3	3	5	4	14	11	25
Rodney Street .....	{ Below 5 years ..		..	..	..	..	1	..	..	..	1	..	1
	{ Above 5 years ..		5	6	1	6	8	2	2	3	16	17	33
Abercromby .....	{ Below 5 years ..		..	..	1	..	..	1	..	..	1	1	2
	{ Above 5 years ..		8	7	5	4	2	3	3	6	18	20	38
Parish Workhouse and Hospitals .....	{ Below 5 years ..		1	1	1	..	..	..	1	..	3	1	4
	{ Above 5 years ..		40	27	51	32	47	22	65	26	203	107	310
Out-Township Workhouse and Hospitals ..	{ Below 5 years ..		..	..	..	..	..	..	..	..	..	..	..
	{ Above 5 years ..		13	6	19	5	14	6	14	14	60	31	91
Everton .....	{ Below 5 years ..		1	2	2	..	1	2	1	..	5	4	9
	{ Above 5 years ..		24	22	22	27	29	27	24	23	99	99	198
Kirkdale .....	{ Below 5 years ..		2	1	1	..	1	..	1	1	5	2	7
	{ Above 5 years ..		17	11	11	14	16	9	15	18	59	52	111
West Derby .....	{ Below 5 years ..		..	..	6	1	3	..	..	1	9	2	11
	{ Above 5 years ..		23	15	10	12	12	13	22	14	67	54	121
North Toxteth .....	{ Below 5 years ..		..	1	..	..	..	1	..	..	..	2	2
	{ Above 5 years ..		16	9	14	10	8	7	18	12	56	38	94
South Toxteth .....	{ Below 5 years ..		1	..	..	1	1	..	..	..	2	1	3
	{ Above 5 years ..		10	7	9	14	9	9	9	15	37	45	82
Parish .....	{ Below 5 years ..		2	2	6	2	2	3	3	2	13	9	22
	{ Above 5 years ..		103	99	109	82	98	64	110	90	420	335	755
Out-Townships .....	{ Below 5 years ..		4	4	9	2	6	3	2	2	21	11	32
	{ Above 5 years ..		103	70	85	82	88	71	102	96	378	319	697
Borough .....	{ Below 5 years ..		6	6	15	4	8	6	5	4	34	20	54
	{ Above 5 years ..		206	169	194	164	186	135	212	186	798	654	1452

## DEATHS FROM OTHER TUBERCULAR DISEASES.

WARDS.			QUARTERS.								YEAR.		
			March.		June.		Sept.		Dec.				
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland .....	{ Below 5 years ..	11	7	22	15	11	6	15	8	59	36	95	
	{ Above 5 years ..	..	1	1	..	..	..	2	1	3	2	5	
Vauxhall .....	{ Below 5 years ..	..	..	1	3	1	2	2	..	4	5	9	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
St. Paul's .....	{ Below 5 years ..	..	1	3	1	..	..	1	1	4	3	7	
	{ Above 5 years ..	..	..	2	..	..	..	..	..	2	..	2	
Exchange . . . . .	{ Below 5 years ..	1	..	1	..	1	..	..	1	3	1	4	
	{ Above 5 years ..	..	..	1	..	..	..	..	..	1	..	1	
St. Anne's .....	{ Below 5 years ..	2	..	7	3	2	1	1	1	12	5	17	
	{ Above 5 years ..	..	1	..	..	..	..	..	2	..	3	3	
Lime Street .....	{ Below 5 years ..	..	2	1	1	1	1	..	..	2	4	6	
	{ Above 5 years ..	..	1	..	..	..	..	1	..	1	1	2	
Castle Street .....	{ Below 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
	{ Above 5 years ..	..	..	..	..	..	..	..	..	..	..	..	
St. Peter's .....	{ Below 5 years ..	1	..	..	..	2	..	..	1	3	1	4	
	{ Above 5 years ..	1	..	..	..	..	..	..	..	1	..	1	
Pitt Street .....	{ Below 5 years ..	1	..	..	..	..	..	..	1	1	1	2	
	{ Above 5 years ..	..	..	..	1	..	..	..	..	..	1	1	
Great George .....	{ Below 5 years ..	1	1	1	..	1	..	4	..	7	1	8	
	{ Above 5 years ..	..	..	..	..	..	1	..	1	..	2	2	
Rodney Street .....	{ Below 5 years ..	..	1	..	2	..	2	..	1	..	6	6	
	{ Above 5 years ..	..	..	..	..	..	3	1	1	1	4	5	
Abercromby .....	{ Below 5 years ..	2	..	..	2	1	2	1	..	4	4	8	
	{ Above 5 years ..	..	..	..	1	1	1	..	..	1	2	3	
Parish Workhouse and Hospitals .....	{ Below 5 years ..	1	1	..	2	1	2	1	..	3	5	8	
	{ Above 5 years ..	2	2	5	..	..	3	..	1	7	6	13	
Out-Township Workhouse and Hospitals.	{ Below 5 years ..	2	..	..	..	..	..	1	..	3	..	3	
	{ Above 5 years ..	1	1	1	..	..	2	..	..	2	3	5	
Everton .....	{ Below 5 years ..	8	11	13	15	15	16	2	8	38	50	88	
	{ Above 5 years ..	2	1	6	2	4	1	3	2	15	6	21	
Kirkdale .....	{ Below 5 years ..	10	7	12	6	19	8	10	5	51	26	77	
	{ Above 5 years ..	..	2	1	4	..	..	1	1	2	7	9	
West Derby .....	{ Below 5 years ..	6	2	10	6	11	10	9	4	36	22	58	
	{ Above 5 years ..	1	..	1	2	5	2	..	4	7	8	15	
North Toxteth .....	{ Below 5 years ..	8	2	3	7	6	3	9	5	26	17	43	
	{ Above 5 years ..	1	2	2	2	3	1	1	..	7	5	12	
South Toxteth .....	{ Below 5 years ..	3	..	3	..	5	1	8	2	19	3	22	
	{ Above 5 years ..	..	2	1	..	2	1	..	1	3	4	7	
Parish .....	{ Below 5 years ..	20	13	36	29	21	16	25	14	102	72	174	
	{ Above 5 years ..	3	5	9	2	1	8	4	6	17	21	38	
Out-Townships .....	{ Below 5 years ..	37	22	41	34	56	38	39	24	173	118	291	
	{ Above 5 years ..	5	8	12	10	14	7	5	8	36	33	69	
Borough .....	{ Below 5 years ..	57	35	77	63	77	54	64	38	275	190	465	
	{ Above 5 years ..	8	13	21	12	15	15	9	14	53	54	107	

I have received from Mr. Hartnup the following Meteorological Table for the year 1878:—

## LIVERPOOL OBSERVATORY.

DATE—1878.	Mean Barometer.	Mean Temperature.	Rainfall on Ground.
	Inches.	°	Inches.
January .....	30.107	41.5	2.820
February .....	30.215	42.8	1.058
March .....	30.063	42.5	1.237
April .....	29.812	49.3	1.182
May .....	29.722	53.8	3.991
June .....	29.900	59.0	2.961
July .....	30.037	61.7	1.075
August .....	29.720	61.7	4.250
September .....	29.925	57.2	4.146
October .....	29.685	51.0	2.375
November .....	29.796	39.7	1.606
December .....	29.697	34.0	1.847



The Select Vestry are kind enough to forward to the Office a daily list of the cases of Fever and Small Pox attended by the Parochial Medical Officers, and a monthly list of the cases of all Zymotic diseases, of Tubercular diseases, and of sickness from other causes, which have occurred in the twelve districts of the Parish.

The daily list enables the Health Committee to take action for the purification of the houses, and I am able from the other to classify the districts and streets in which sickness has prevailed.

The following are the streets within the Parish of Liverpool in which three or more cases of Fever, or two or more of Scarlatina, or two or more of Small Pox have occurred during the year :—

STREETS.	Zymotic Diseases, including Fever, Scarlatina, and Small Pox.	Fever.	Scarlatina.	Small Pox.	Tubercular Diseases, including Phthisis.	Phthisis	Other Diseases.
Addison .....	5	4	..	..	16	16	221
Adlington .....	10	5	3	..	10	10	131
Arley .....	11	10	..	..	2	2	58
Back Portland .....	22	14	..	..	5	5	119
Banastre .....	6	4	..	..	..	..	26
Beau .....	8	5	..	..	5	3	114
Birkett .....	5	5	..	..	2	2	40
Bispham .....	8	7	..	..	8	8	231
Blandford .....	10	5	3	..	11	11	211
Bond .....	4	3	..	..	3	3	49
Bostock .....	15	15	..	..	5	5	78
Boundary .....	3	3	..	..	..	..	16
Brick .....	17	11	..	..	7	5	158
Brownlow Hill (Vagrant sheds included) .....	43	17	2	..	15	14	387
Burnet .....	5	5	..	..	..	..	15
Canning Place (Sailors' Home included) .....	5	3	..	..	1	1	18
Charters .....	16	16	..	..	1	1	84
Cheapside .....	5	5	..	..	..	..	67
Circus .....	14	12	..	..	9	8	72
Clare .....	10	10	..	..	4	4	38
Clayton .....	2	..	2	..	..	..	18
Clement .....	3	3	..	..	..	..	28
Collingwood .....	3	3	..	..	6	6	116
Comus .....	4	3	..	..	4	4	31
Constance .....	4	4	..	..	2	1	27
Dalrymple .....	14	6	..	..	..	..	12
Denison .....	5	..	2	..	3	3	18
Drinkwater Gardens .....	8	7	..	..	2	2	9
Dryden .....	4	3	..	..	..	..	79
Eaton .....	6	4	..	..	1	1	58
Eccles .....	8	8	..	..	2	2	4
Eldon .....	11	9	..	..	2	2	103
Eldon Place .....	3	3	..	..	..	..	4
Fontenoy .....	8	..	3	..	7	7	93
Ford .....	11	11	..	..	1	1	115
Freemasons Row .....	6	5	..	..	2	2	10
Gay .....	5	4	..	..	1	1	19
Gerard .....	6	..	3	..	10	19	88



STREETS.	Zymotic Diseases, including Fever, Scarlatina, and Small Pox.	Fever.	Scarlatina.	Small Pox.	Tubercular Diseases, including Phthisis.	Phthisis	Other Diseases.
Gilbert .....	5	5	..	..	3	3	85
Gildarts Gardens .....	14	11	2	..	1	1	69
Graham Place.....	7	7	..	..	1	1	6
Great Howard. ....	7	3	..	..	2	2	33
Harker Place .....	6	6	..	..	..	..	1
Henry Edward .....	9	6	..	..	12	12	118
Holly .....	18	13	3	..	11	10	67
Hopwood .....	8	6	..	2	..	..	65
Hornby.....	27	20	..	..	5	5	266
Jasper .....	6	6	..	..	..	..	10
Kew .....	14	10	..	..	4	4	50
Knight .....	3	3	..	..	..	..	26
Latimer .....	11	7	..	..	10	10	47
Leander .....	3	3	..	..	..	..	19
Limekiln Lane .....	11	8	..	..	..	..	93
Lionel .....	18	18	..	..	12	12	48
Love Lane .....	12	12	..	..	..	..	..
Mansfield .....	2	..	..	2	4	4	75
Marlborough .....	14	11	..	..	..	..	70
Marybone.....	5	4	..	..	2	2	16
Midghall .....	8	6	..	..	3	3	91
Milton .....	4	3	..	..	9	8	118
Naylor .....	11	8	3	..	2	2	51
Newsham .....	4	4	..	..	5	5	53
Norfolk .....	3	3	..	..	6	6	105
Paradise .....	2	..	2	..	..	..	8
Paul .....	8	6	..	..	1	1	93
Peach .....	5	..	2	..	2	1	47
Pitt .....	4	..	3	..	9	9	44
Portland .....	15	11	..	..	2	2	109
Rachel .....	4	4	..	..	4	4	54
Raymond.....	10	5	..	..	4	4	100
Richmond Row .....	8	4	3	..	15	15	124
Saint Andrew .....	10	5	2	..	4	4	144
Saint Vincent .....	2	..	..	2	..	..	6
Saltney .....	5	4	..	..	..	..	33
Sawneypope.....	7	4	2	..	34	34	139
Scarlet .....	6	6	..	..	..	..	13
Seacombe Lane .....	2	..	2	..	..	..	6
Sparling .....	4	4	..	..	2	2	57
Stockdale.....	3	3	..	..	8	8	60
Summer Seat .....	3	3	..	..	..	..	13
Tatlock.....	5	5	..	..	..	..	73
Thurlow .....	9	8	..	..	1	1	22
Torbock .....	3	3	..	..	..	..	25
Travers.....	6	5	..	..	3	3	36
Trueman .....	7	7	..	..	5	5	58
Webster .....	5	..	5	..	..	..	10
White .....	7	..	6	..	3	3	36
Wood .....	5	5	..	..	1	1	10

Mr. Hagger, the Vestry Clerk, has kindly supplied the following Tables:—

### PARISH OF LIVERPOOL.

Return of Infectious Diseases, &c., in Workhouse Hospital.

1878. WEEK ENDING		TYPHUS.					SIMPLE CONTINUED.					MEASLES.				
		No. at commence- ment of week.	Admitted.	Discharged.	Died.	Remaining at end of week.	No. at commence- ment of week.	Admitted.	Discharged.	Died.	Remaining at end of week.	No. at commence- ment of week.	Admitted.	Discharged.	Died.	Remaining at end of week.
Jan.	5....	34	7	12	3	26	6	3	4	..	5	16	5	3	..	18
"	12....	26	6	14	1	17	5	8	3	..	10	18	5	6	1	16
"	19....	17	17	3	..	31	10	8	4	..	14	16	6	4	1	17
"	26....	31	8	9	3	27	14	5	4	..	15	17	8	1	..	24
Feb.	2....	27	4	1	..	30	15	8	8	..	15	24	7	..	4	27
"	9....	30	18	2	3	43	15	6	1	1	19	27	4	1	..	30
"	16....	43	15	14	4	40	19	9	17	..	11	30	3	7	2	24
"	23....	40	8	8	3	37	11	..	6	..	5	24	1	17	..	8
March	2....	37	5	11	4	27	5	2	2	..	5	8	..	3	..	5
"	9....	27	9	7	1	28	5	1	3	1	2	5	1	1	..	5
"	16....	28	8	9	..	27	2	2	..	..	4	5	..	3	..	2
"	23....	27	11	5	2	31	4	3	1	..	6	2	..	1	..	1
"	30....	31	6	6	1	30	6	6	1	..	11	1	..	1	..	..
April	6....	30	9	7	1	31	11	9	8	..	12	..	2	..	..	2
"	13....	31	9	7	1	32	12	5	10	..	7	2	1	..	..	3
"	20....	32	5	5	2	30	7	3	4	..	6	3	..	..	..	3
"	27....	30	1	11	1	19	6	1	1	..	6	3	..	..	..	3
May	4....	19	6	7	..	18	6	9	1	..	14	3	..	2	..	1
"	11....	18	17	5	..	30	14	5	4	..	15	1	..	1	..	..
"	18....	30	9	4	4	31	15	3	6	..	12	..	..	..	..	..
"	25....	31	9	3	1	36	12	4	3	..	13	..	..	..	..	..
June	1....	36	17	10	..	43	13	5	6	1	11	..	..	..	..	..
"	8....	43	6	8	2	39	11	5	1	..	15	..	..	..	..	..
"	15....	39	9	7	..	41	15	1	8	2	6	..	..	..	..	..
"	22....	41	5	16	3	27	6	6	6	3	3	..	..	..	..	..
"	29....	27	8	13	1	21	3	7	4	..	6	..	..	..	..	..
July	6....	21	6	11	..	16	6	6	8	..	4	..	..	..	..	..
"	13....	16	11	1	1	25	4	..	3	..	1	..	..	..	..	..
"	20....	25	3	7	2	19	1	4	4	..	1	..	..	..	..	..
"	27....	19	11	2	3	25	1	4	..	..	5	..	..	..	..	..
Aug.	3....	25	3	8	1	19	5	4	5	..	4	..	..	..	..	..
"	10....	19	6	..	..	25	4	6	3	..	7	..	..	..	..	..
"	17....	25	9	12	3	19	7	16	4	..	19	..	..	..	..	..
"	24....	19	14	5	..	28	19	10	9	..	20	..	..	..	..	..
"	31....	28	11	4	4	31	20	4	7	..	17	..	..	..	..	..
Sept.	7....	31	11	4	3	35	17	10	3	..	24	..	..	..	..	..
"	14....	35	13	3	1	44	24	7	11	..	20	..	..	..	..	..
"	21....	44	10	7	1	46	20	5	11	1	13	..	..	..	..	..
"	28....	46	16	8	3	51	13	17	11	2	17	..	..	..	..	..
Oct.	5....	51	6	10	3	44	17	7	4	..	20	..	..	..	..	..
"	12....	44	9	16	..	37	20	5	9	..	16	..	..	..	..	..
"	19....	37	6	11	1	31	16	4	8	..	12	..	..	..	..	..
"	26....	31	14	5	1	39	12	9	6	..	15	..	..	..	..	..
Nov.	2....	39	7	4	1	41	15	9	5	..	19	..	..	..	..	..
"	9....	41	10	12	1	38	19	4	6	..	17	..	..	..	..	..
"	16....	38	5	4	1	38	17	6	2	..	21	..	..	..	..	..
"	23....	38	14	10	6	36	21	4	3	..	22	..	..	..	..	..
"	30....	36	12	8	7	33	22	5	6	..	21	..	..	..	..	..
Dec.	7....	33	7	14	1	25	21	4	4	..	21	..	..	..	..	..
"	14....	25	3	7	3	18	21	5	5	..	21	..	..	..	..	..
"	21....	18	2	2	..	18	21	9	7	..	23	..	..	..	..	..
"	28....	18	3	7	1	13	23	2	2	..	23	..	..	..	..	..



## PARISH OF LIVERPOOL.

Return of Infectious Diseases, &amp;c., in Workhouse Hospital.

1878. WEEK ENDING		SCARLATINA.				SMALL POX.				TYPHOID.						
		No. at commence- ment of week.	Admitted.	Discharged.	Died.	Remaining at end of week.	No. at commence- ment of week.	Admitted.	Discharged.	Died.	Remaining at end of week.	No. at commence- ment of week.	Admitted.	Discharged.	Died.	Remaining at end of week.
Jan.	5	9	1	3	..	7	..	..	..	..	1	..	..	..	..	1
"	12	7	2	1	..	8	..	..	..	..	1	..	..	..	..	1
"	19	8	..	1	1	6	..	..	..	..	1	..	..	..	..	1
"	26	6	..	..	..	6	..	..	..	..	1	..	..	..	..	1
Feb.	2	6	..	4	..	2	..	..	..	..	1	..	..	..	..	1
"	9	2	..	1	..	1	..	..	..	..	1	..	..	..	..	1
"	16	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..
"	23	1	..	1	..	..	..	..	..	..	1	..	1	..	..	..
March	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1
"	9	..	..	..	..	..	..	..	..	..	1	1	..	..	..	2
"	16	..	..	..	..	..	..	..	..	..	2	..	..	..	..	2
"	23	..	4	..	..	4	..	..	..	..	2	..	..	..	..	2
"	30	4	..	..	..	4	..	..	..	..	2	..	..	..	..	2
April	6	4	1	..	..	5	..	..	..	..	2	..	2	..	..	..
"	13	5	..	1	..	4	..	..	..	..	..	2	2	1	..	1
"	20	4	..	1	..	3	..	..	..	..	1	2	..	..	..	3
"	27	3	..	3	..	..	..	..	..	..	3	..	..	..	..	3
May	4	..	..	..	..	..	..	..	..	..	3	..	1	..	..	4
"	11	..	6	..	..	6	..	..	..	..	3	..	..	..	1	3
"	18	6	1	1	..	6	..	..	..	..	4	..	1	..	..	2
"	25	6	..	..	..	6	..	..	..	..	3	1	2	..	..	4
June	1	6	1	..	..	7	..	..	..	..	2	3	1	..	..	..
"	8	7	2	..	..	9	..	..	..	..	4	7	..	..	..	11
"	15	9	1	4	1	5	..	..	..	..	11	..	1	1	..	9
"	22	5	..	..	..	5	..	..	..	..	9	2	..	1	..	10
"	29	5	2	1	1	5	..	..	..	..	10	2	2	1	..	9
July	6	5	6	1	1	9	..	..	..	..	9	..	1	..	..	8
"	13	9	2	2	..	9	..	..	..	..	8	..	3	..	..	5
"	20	9	3	1	..	11	..	..	..	..	5	..	2	..	..	3
"	27	11	3	..	1	13	..	..	..	..	3	2	1	..	..	4
Aug.	3	13	..	2	1	10	..	..	..	..	4	..	2	..	..	2
"	10	10	7	2	..	15	..	..	..	..	2	4	..	..	3	6
"	17	15	5	4	1	15	..	..	..	..	6	3	..	..	..	6
"	24	15	7	2	3	17	..	..	..	..	6	1	..	..	..	7
"	31	17	7	2	1	21	..	..	..	..	7	1	..	..	..	8
Sept.	7	21	4	..	..	25	..	..	..	..	8	5	..	..	..	13
"	14	25	8	6	..	27	..	..	..	..	13	4	3	1	..	13
"	21	27	4	1	1	29	..	..	..	..	13	4	..	..	..	17
"	28	29	11	5	1	34	..	..	..	..	17	1	3	1	..	14
Oct.	5	34	12	4	1	41	..	..	..	..	14	1	4	1	..	10
"	12	41	5	5	1	40	..	..	..	..	10	..	5	..	..	5
"	19	40	4	9	1	34	..	..	..	..	5	4	6	1	..	2
"	26	34	1	4	..	31	..	..	..	..	2	6	..	..	..	8
Nov.	2	31	2	4	1	28	..	..	..	..	8	..	2	..	..	6
"	9	28	6	6	1	27	..	..	..	..	6	10	4	..	..	12
"	16	27	6	5	..	28	..	..	..	..	12	2	4	2	..	8
"	23	28	2	5	2	23	..	..	..	..	8	1	1	..	..	8
"	30	23	1	5	..	19	..	..	..	..	8	1	3	2	..	4
Dec.	7	19	..	3	..	16	..	..	..	..	4	..	..	..	..	4
"	14	16	3	6	..	13	..	..	..	..	4	5	3	..	..	6
"	21	13	1	3	..	11	..	..	..	..	6	1	5	..	..	2
"	28	11	2	5	..	8	..	..	..	..	2	..	..	..	..	2



## PARISH OF LIVERPOOL.

## RETURN OF PERSONS IN RECEIPT OF RELIEF IN THE YEAR 1878.

Week ending,	Work-house.	Industrial Schools.	Out Relief.	Week ending.	Work-house.	Industrial Schools.	Out-Relief.
1878.				1878.			
January 5..	2729	807	2423	July 6..	2346	784	2337
„ 12..	2743	810	2443	„ 13..	2362	800	2333
„ 19..	2734	833	2430	„ 20..	2351	805	2288
„ 26..	2761	846	2474	„ 27..	2400	816	2319
February 2..	2822	857	2486	August 3..	2355	860	2311
„ 9..	2823	857	2488	„ 10..	2351	883	2294
„ 16..	2786	853	2550	„ 17..	2379	860	2278
„ 23..	2736	864	2585	„ 24..	2401	860	2302
March 2..	2760	847	2578	„ 31..	2419	875	2281
„ 9..	2718	850	2531	September 7..	2428	886	2311
„ 16..	2678	840	2547	„ 14..	2426	882	2276
„ 23..	2643	847	2516	„ 21..	2417	878	2266
„ 30..	2660	839	2482	„ 28..	2467	876	2259
April 6..	2662	830	2402	October 5..	2536	889	2246
„ 13..	2612	812	2438	„ 12..	2539	889	2244
„ 20..	2562	827	2426	„ 19..	2501	900	2262
„ 27..	2546	828	2389	„ 26..	2558	903	2268
May 4..	2489	825	2381	November 2..	2628	905	2298
„ 11..	2488	827	2417	„ 9..	2643	940	2297
„ 18..	2466	832	2379	„ 16..	2698	933	2321
„ 25..	2416	831	2412	„ 23..	2724	942	2401
June 1..	2406	808	2362	„ 30..	2737	936	2422
„ 8..	2405	798	2391	December 7..	2790	958	2428
„ 15..	2402	794	2322	„ 14..	2864	979	2493
„ 22..	2377	788	2315	„ 21..	2855	984	2638
„ 29..	2327	794	2339	„ 28..	2848	980	2707

These show that the average number of persons suffering from Continued Fever (including therein Typhus, Typhoid, and simple Continued Fever) at one time in Hospital during the year 1878 was 48, and their percentage Death-rate was 13·3. The average number of cases of Measles at one time in Hospital during the year was 4, and the percentage Death-rate was 13·6; the average number of cases of Scarlatina at one time in the Hospital during the year was 13, and the percentage Death-rate was 14·1. 19 cases of Small-pox belonging to the Parish were admitted to Hospital during the year, 18 being sent to Mill Road Hospital, and 1 to Netherfield Road Hospital.

The number of persons in receipt of Parochial Relief on Saturday, 29th of June, 1878, was 5,460, or 83 more than at the corresponding period of 1877; and the number on Saturday, the 28th December, 1878, was 6,535, or 631 more than at the same period of 1877.

## SANITARY WORK.

Privies Certified for Conversion into Water Closets during the year 1878.

WARDS.	No. of Privies Certified.
Scotland .....	240
Vauxhall .....	23
St. Paul's .....	9
Exchange .....	5
St. Anne's .....	87
Lime Street .....	23
Castle Street .....	2
St. Peter's .....	8
Pitt Street .....	14
Great George .....	42
Rodney Street .....	69
Abercromby .....	13
Everton .....	742
Kirkdale .....	108
West Derby .....	260
North Toxteth .....	206
South Toxteth .....	241
<b>TOTAL</b> .....	<b>2092</b>

The Borough and Water Engineer has kindly supplied the following tables :—

The number of Houses Erected; also the number of Houses Taken Down in each of the Sixteen Wards during the year 1878 :—

	WARDS.	Houses Erected.	Houses taken down.
1	Everton and Kirkdale .....	1049	16
2	Scotland .....	7	79
3	Vauxhall .....	....	16
4	St. Paul's .....	....	....
5	Exchange .....	....	....
6	Castle Street .....	....	3
7	St. Peter's .....	....	....
8	Pitt Street .....	....	10
9	Great George .....	5	....
10	Rodney Street .....	1	....
11	Abercromby .....	....	....
12	Lime Street .....	2	8
13	St. Anne's .....	....	6
14	West Derby .....	806	6
15	North Toxteth .....	635	15
16	South Toxteth .....	152	....
		<b>2657</b>	<b>159</b>

## SEWER VENTILATION.

Number of Iron Pipe Ventilating Shafts, fitted with Archimedian Extractors. . .	1,021
The length of Sewers Ventilated under present system .....	76 Miles
Number of Street Ventilating Gratings fixed .....	1,598



## LODGING-HOUSES.

The Health Committee have, since the passing of the Sanitary Act, 1866, ruled that, as far as possible, all registered lodging-houses should have a day apartment for the accommodation of their lodgers, and that all houses where single rooms were occupied by day and night should be registered as sub-let. The space required for a night lodger in a registered lodging-house is 300 cubical feet, while the space in a sub-let house for each adult is 350 feet.

There were on the register 1,130 lodging-houses at the end of 1877, and 1,095 at the end of 1878. This difference was occasioned by the removal of 298 old licenses, and the addition of 263 new ones. The visits to lodging-houses are both by day and night. The lodging-houses of the better class, and especially those provided only with single beds for each person, and only with the number of beds equivalent to the number of lodgers allowed, are not visited at night except on grave suspicion or on complaint, or in the case of foreign emigrant lodging-houses. The night visits are pretty nearly restricted to the low districts and tramp houses. The number of day visits paid during the year was 46,165, and the night visits 6,289. The number of lodging-houses found overcrowded on the night visits was 26, the number of informations laid for breaches of the bye-laws was 94, with the results of fines in 89 cases to the extent of £18 17s. 6d., in sums varying from 1s. to 40s. and costs. The number of lodging-houses found dirty was 227; notices were served to lime-wash and cleanse.

It is necessary frequently to visit houses which are not licensed either as lodging or sub-let houses, especially when emigration is brisk, or at race times. There were 2,795 such visits paid during the day, and in 62 of the cases where suspicion was confirmed they were followed up by night visits. A tenant harbouring lodgers is not taken before the Justices for the first offence, but is noticed to apply to have his rooms measured and licensed. There were 189 such notices issued during the year, but in only five cases did the tenants refuse to comply; they were brought before the Justices and fined. A by-law requires that every case of infectious sickness in a lodging-house should be at once reported to the Medical Officer of Health. 48 cases of fever and 3 cases of small pox occurred in lodging-houses; in 45 of the cases the patients were at once sent to hospital, the remaining 6 being members of the keepers' families, were not removed; 5 of these latter died. In all cases of fever or infectious disease the bedding was at once removed to the disinfecting apparatus, and the rooms purified and cleansed; in the 6 cases where the patients remained, the licenses to receive lodgers were suspended by the Medical Officer. No lodger died from fever or small pox in a registered lodging-house; but, not including the five cases of fever, there were 120 deaths from non-contagious diseases in lodging-houses, of which 91 belonged to the keepers' families and 29 were lodgers.



## SUB-LET HOUSES.

The number of sub-let Houses on the Register at the termination of 1877 was 12,041; the number registered during 1878 was 253, making the total on the Register on the 31st December, 12,294. The number of visits paid during the night was 13,281, and during the day 68,638, with the result of finding 1,562 rooms overcrowded. In addition to overcrowding the offence (though not punishable in sub-let houses) of permitting males and females not married to occupy the same room, comes under the notice, and is entered in the books of the Inspectors. There were 982 rooms thus indecently occupied by 1,427 males and 1,752 females, besides having also in these rooms 712 children between the ages of 5 and 13 years. The character of the indecent occupation may be judged of from the following facts:—In 504 instances one man and two women were found in the same bedroom; in 283 instances two men and one woman; in seventy-seven instances two men and two women; in sixty-one instances one man and three women; in twenty-seven instances three men and one woman; in nine instances two men and three women; in nine instances one man and four women; in four instances three men and two women; in three instances four men and one woman; in two instances two men and four women; in one instance one man and five women; in one instance one man and six women; and in one instance four men and four women.

Informations were laid against 1,354 chief tenants for permitting overcrowding in rooms, with the following results:—7 were fined 1s; 1,076 fined 1s. and 1s. costs; 1 fined 2s. 6d.; 207 fined 2s. 6d. and 2s. 6d. costs; 34 fined 5s. and 4s. 6d. costs; and 3 fined 10s. and 4s. 6d. costs; making a total of fines levied during the year of £178 3s. Of the remaining 26 cases, 17 informations were withdrawn and 9 acquitted, the tenants having abated the overcrowding.

## BAKEHOUSES.

1,144 day visits and 1,431 night visits have been made to Bakehouses during the year. 22 informations were laid for working young people, below the age of 18 years, between the hours of 9 p.m. and 5 a.m. Penalties were inflicted in 18 cases, varying from 2s. 6d. and costs to 5s. and costs, and making a total of £4 19s. 158 Bakehouses were found dirty, and notices were served to limewash and cleanse them.

## LICENSES FOR CATTLE.

During the year 1878, 20 applications for licenses to keep 150 cows were made to, and granted by the Health Committee; 23 shippons licensed to keep 141 cows, have been given up during the year. There are at present 430 shippons licensed to keep 4,756 cows. 62 of the shippons previously licensed have been transferred to fresh tenants. In 52 of the shippons pigs are also allowed to be kept; in 48 of them only two pigs each; in 3, 4 pigs; and in 1, 5 pigs.

45 applications were made during the year to keep pigs in styres separate from, and unconnected with shippons; 8 of the applications for keeping 20 pigs were granted. 46 piggeries, licensed to keep 115 pigs, have been given up during the year. 9 piggeries previously licensed have been transferred to fresh tenants. The total number of premises or styres now licensed in the Borough (excluding shippons) is 171, for keeping 524 pigs.

## MORTUARIES.

During the year 64 bodies were, by order of the Justices on the certificate of the Medical Officer, removed to the Mortuaries provided by the Council under section 142 of the Public Health Act, 1875.

## CASES OF INFECTIOUS DISEASE REPORTED DURING 1878.

Year—1878.	Small Pox.	Fever.	Scarlatina.	Measles.	Diphtheria	TOTAL.
January .....	3	89	60	71	8	231
February .....	5	85	55	67	9	221
March .....	2	69	62	96	7	236
April .....	6	76	67	152	15	316
May .....	1	118	105	117	10	351
June .....	3	77	123	85	1	289
July .....	4	82	159	19	12	276
August .....	3	148	244	16	3	414
September .....	3	186	285	9	11	494
October.....	2	172	373	20	4	571
November .....	—	185	371	21	10	587
December.....	3	102	303	18	16	442
<b>TOTAL.....</b>	<b>35</b>	<b>1389</b>	<b>2207</b>	<b>691</b>	<b>106</b>	<b>4428</b>
Removed to Hospital.....	25	857	190	21	7	1100

Of the patients removed to Hospital the following were conveyed by the Sanitary Officers:—423 cases of Fever and Scarlatina, 10 cases of Small Pox, and 4 cases of Measles, making a total of 437 persons. 106 were taken to Netherfield Road Hospital, 287 to the Parish Workhouse Hospital, 6 to Toxteth Workhouse Hospital, and 38 to West Derby Union Hospital.



## DISINFECTION OF HOUSES.

In all cases of infectious disease the houses were disinfected, free of cost, with sulphurous gas, by officers appointed by the Health Committee; but whenever there was sickness in any room of the house, so as to endanger health by the use of sulphurous gas, carbolic acid powder was freely sprinkled in the rooms and passages of the house until the sulphurous gas could be used safely. No house is considered properly disinfected until sulphurous gas has been used. The existence of sickness, and the consequent employment of carbolic acid powder, necessitate many visits by the persons in charge of disinfection. There were in all 7,107 visits paid during the year to houses for the purpose of disinfection, the number of houses properly disinfected being 2,841.

## THE DISINFECTING APPARATUS.

The number of articles sent to the Disinfecting Apparatus during the year amounted to 35,052.

DATE 1878.	NUMBER OF ARTICLES DISINFECTED IN THE APPARATUS.		DATE 1878.	NUMBER OF ARTICLES DISINFECTED IN THE APPARATUS.	
	Ford Street.	New Bird Street.		Ford Street.	New Bird Street.
Week ending			Week ending		
January 5.....	..	588	July 6.....	..	647
12.....	..	456	13.....	..	677
19.....	..	476	20.....	..	574
26.....	..	400	27.....	..	290
February 2.....	..	345	August 3.....	..	506
9.....	..	315	10.....	..	568
16.....	..	437	17.....	..	409
23.....	..	732	24.....	..	782
March 2.....	..	465	31.....	..	601
9.....	..	738	September 7.....	..	808
16.....	..	426	14.....	..	876
23.....	..	679	21.....	..	1019
30.....	..	424	28.....	..	1083
Total for.... }	..	6481	Total for.... }	..	8840
Quarter.... }			Quarter.... }		
April 6.....	..	506	October 5.....	..	773
13.....	..	379	12.....	..	784
20.....	..	715	19.....	..	897
27.....	..	345	26.....	..	1192
May 4.....	..	461	November 2.....	..	1021
11.....	..	551	9.....	..	828
18.....	..	581	16.....	..	1060
25.....	..	615	23.....	..	1334
June 1.....	..	468	30.....	864	285
8.....	..	427	December 7.....	710	694
15.....	..	398	14.....	781	486
22.....	..	416	21.....	546	513
29.....	..	450	28.....	334	317
Total for.... }	..	6312	Total for.... }	3235	10184
Quarter.... }			Quarter.... }		



## PORT SANITARY AUTHORITY.

THE following summary explains the duties performed during the past year. It may be stated that the Corporation of Liverpool have delegated their powers to the Authority of Birkenhead, to treat cases of infectious disease occurring on board vessels in the Docks at Birkenhead.

Date. 1878.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.	REMARKS.
Feb. 20..	Georgian .....	Smyrna .....	Small Pox ....	Netherfield Rd.	The vessel and bedding were disinfected by the Port Sanitary Authority.
Feb. 21..	Rallus .....	Antwerp.....	Small Pox ....	Mill Road ....	The vessel and bedding were disinfected by the Port Sanitary Authority.
Feb. 22..	Montana .....	New York ....	Fever .....	..	The patient died and was buried at sea, and the vessel was disinfected and the bedding destroyed by the crew.
Mar. 17..	Massachusetts ..	Boston .....	Diphtheria....	..	The patient was convalescent, and the vessel and bedding were disinfected by the Port Sanitary Authority.
Mar. 17..	Texas .....	New Orleans..	Small Pox ....	..	The patient was convalescent, and the vessel and bedding were disinfected by the Port Sanitary Authority.
Mar. 23..	Algeria .....	New York ....	Measles .....	..	The patient was convalescent, and the vessel and bedding were disinfected by the crew.
May 7..	Batavia .....	Boston .....	Measles .....	..	The patient landed at Queenstown in a convalescent state, and the vessel was disinfected and the bedding, &c., destroyed by the crew.
June 12..	Batavia .....	Boston .....	Measles .....	Brownlow Hill	The vessel was disinfected, and the bedding destroyed by the crew.
June 18..	Spain .....	New York ....	Measles .....	Brownlow Hill	The vessel and bedding were disinfected by the Port Sanitary Authority.
			(3 cases)		
July 16..	Batavia .....	Boston .....	Measles .....	..	The patient was convalescent, and the vessel was disinfected by the Port Sanitary Authority, and the bedding destroyed by the crew.
July 30..	Spain .....	New York ....	Chicken Pox ..	..	The patients were convalescent, and the vessel and bedding were disinfected by the Port Sanitary Authority.
			(4 cases)		

Date. 1878.	Name of Vessel.	Where from.	Nature of Sickness.	Hospital to which Patient was removed.	REMARKS.
Aug. 20..	Tonawanda ....	Mobile.....	Fever ..... (2 cases)	Brownlow Hill	The patients were removed to Hospital in a public car, which was caused to be thoroughly disinfected, and the vessel and bedding were disinfected by the Port Sanitary Authority.
Sep. 2..	City of Brussels..	New York.....	Enteric Fever..	Brownlow Hill	The Vessel and bedding were disinfected by the Port Sanitary Authority.
Sep. 17..	Biela .....	Rio de Janeiro.	Small Pox ....	Mill Road ....	The vessel and bedding were disinfected by the Port Sanitary Authority.
Sep. 22..	Venezuelan ....	Kingston ....	Remittent Fever (5 cases)	..	The patients were convalescent, and no disinfecting was required.
Sep. 27..	Chilian .....	New Orleans..	Yellow Fever (3 cases)	..	3 Deaths from Yellow Fever occurred during the homeward voyage, the last one when the vessel was within 48 hours' sail of the Port. The bodies were buried at sea and the bedding thrown overboard. The vessel arrived in the River on Friday, the 27th September, and was placed in Quarantine by the Customs Authorities. Notice of her arrival was given by the owners to the Port Medical Officer, who, on Saturday morning, called on the Customs Authorities and offered the services of his Staff for the purpose of disinfection, but not being able at that time to accept of this offer the disinfection was deferred until Wednesday, 2nd October, when upon application of the Customs Authorities, the vessel was thoroughly disinfected with sulphur and carbolic acid.
Oct. 11..	Oscar II. ....	Miramichi ....	Typhoid Fever	Mill Road ....	The vessel and bedding were disinfected by the Port Sanitary Authority.
Oct. 22..	Iberia .....	Callao .....	Small Pox ....	..	The patient died and was buried at sea, and the vessel was disinfected and the bedding destroyed by the crew.
Oct. 22..	Finland .....	Nova Scotia ..	Fever .....	Brownlow Hill	The vessel and bedding were disinfected by the Port Sanitary Authority.
Nov. 22..	The Morgan Richards ....	Dunkirk .....	Typhoid Fever	Northern Hospital.	The vessel and bedding were disinfected by the Port Sanitary Authority.
Nov. 23..	Semaphore ....	Belfast .....	Scarlatina ....	Netherfield Rd.	The vessel was disinfected by the crew, and the bedding disinfected by the Port Sanitary Authority.
Dec. 1..	Copernicus ....	Baltimore ....	Small Pox ....	Netherfield Rd.	The vessel and bedding were disinfected by the Port Sanitary Authority.



The following report has been kindly prepared by J. Campbell Brown, D. Sc., Analyst for the Borough:—

REPORT ON THE WORK DONE IN THE BOROUGH OF LIVERPOOL DURING THE YEAR 1878, UNDER THE PROVISIONS OF "THE SALE OF FOOD AND DRUGS ACT, 1875."

During the year 1878 the Analyst for the Borough of Liverpool has analysed 275 samples, of which 255 were submitted by the Inspectors of Nuisances for the Borough, 1 by another officer of the Health Committee, and 19 by private persons. There were 107 offences against the Act, besides some trifling and doubtful cases.

The samples are classified as follows:—

No. of Samples.	Description of Samples.	Results of Analysis.
136	Milk .....	37 were offences, and a few doubtful cases.
10	Butter .....	2 were trifling offences.
4	Butterine .....	1 was insufficiently labelled.
14	Beer .....	Genuine
5	Spirits .....	"
9	Drugs .....	1 was impure and 1 was inferior.
7	Preserved Peas ..	2 were coloured by poisonous salts of copper.
84	Coffee .....	66 were offences and 3 trifling offences.
2	Bread .....	Genuine.
3	Oatmeal .....	"
1	Marmalade .....	Made from inferior materials.
275		107 were offences.

The number of prosecutions instituted was 105, the results being that 11 cases were dismissed with a caution or withdrawn, and in 94 cases penalties were inflicted varying from 5s. to £10, besides costs in each case.

The total amount of the fines was £85 5s., and about £50 in costs (including those inflicted in private cases), or nearly twice as much as in 1877.

The average amount of penalty was only 18s. 7½d. It was pointed out last year that while the average penalty in the Borough of Liverpool was only 15s. 11d. the average penalty in the County of Lancaster was £2 17s. 4d. The effect has been that while the percentage of offences in the County fell to 22·5 in the year 1877-8 from 27·3 in the year 1876-7, the percentage of offences in the Borough has risen to 38·9 in 1878 from 31·8 in 1877.

In the cases of milk the percentage of offences in the County fell from 32 to 21, while in the Borough the percentage only fell from 31·2 to 27·1. This difference appears to be due to the small amount of the penalty inflicted in the



Borough—a penalty so small that it would pay a dishonest dealer to continue the practice of watering milk, even if he were detected and fined once every three weeks.

The only articles formerly extensively adulterated whose sophistication has been effectually suppressed are tea, preserved peas, and sweetmeats. In these cases the fines were higher than the average, having varied from £1 to £5.

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### LIVERPOOL WATER SUPPLY.

By permission of the Water Committee, the following Summary of the Analyses of the Water supplied to Liverpool, during the year 1878, has been kindly supplied by Dr. J. Campbell Brown:—

During the year 1878, periodical analyses of about forty samples of water have been made on behalf of the Water Committee, besides occasional analyses of special samples.

The average composition of the water is very nearly what is shown by the figures in the accompanying table.

In the samples from Green Lane and Windsor wells there is great difference in composition, according as the water is kept down to a low level by pumping or allowed to reach a high level. The deep water contains a much larger proportion of hardening and other mineral salts, but a much smaller proportion of unoxidised or partly oxidised organic matter; in fact, only the deep water is suitable for drinking purposes, although the upper water is better for washing and boiler purposes.

Dudlow Lane contains a larger proportion of the oxidised remains of organic matter than any of the other wells; but the oxidation has been fairly complete during the year, except on one occasion.

The water of Bootle well is wholesome, but, like that of Windsor well, excessively hard.

The water from Rivington is generally slightly coloured by peat, but is wholesome.

TABLE SHOWING THE AVERAGE COMPOSITION OF THE LIVERPOOL WATER SUPPLY DURING THE YEAR 1878,  
EXPRESSED IN PARTS PER 100,000.

[DESCRIPTION.]	Total Solid Matter in Solution.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrites and Nitrates.	Total Combined Nitrogen.	Chlorine.	Total Hardness.
Green Lane Well .....	28·	·162	·044	·005	·391	·439	2·72	18·°
Green Lane Well, when not pumped.....	10·	·237	·043	·002	·057	·102	1·4	5·°
Dudlow Lane Well .....	17·4	·139	·032	·003	·483	·517	2·57	8·8°
Windsor Well .....	33·	·089	·008	·002	·334	·344	3·5	24·°
Windsor Well, when not pumped.....	18·4	·213	·048	·003	·23	·281	2·13	9·3°
Bootle Well.....	37·	·107	·011	·003	·414	·428	3·7	24·°
Rivington Water .....	9·	·254	·055	·003	·023	·08	1·3	3·3°

INSPECTOR OF NUISANCES' REPORT FOR THE YEAR 1878.  
SLAUGHTER-HOUSE RETURNS OF CATTLE KILLED IN  
THE BOROUGH, 1878.

STREET.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat imported for Sale at the Abattoir.		
						Beasts.	Sheep.	Pigs.
Abattoir .....	27747	149419	..	11869	22005	2246	31588	67
NEW PARTS.	Arch No. 30 .....	339	476	91	31	1153	..	..
	Back Butler Street .....	233	886	274	..	..	..	..
	Back Castle Street .....	648	933	266	29	..	..	..
	Back Mount Vernon Green .....	654	5692	1593	7	..	..	..
	Browside .....	552	1267	439	9	..	..	..
	Byles Street .....	45	2013	589	..	..	..	..
	Corlett Street .....	674	2650	753	2	15	..	..
	Cotter Street .....	..	..	..	..	2650	..	..
	Crown Street .....	342	1130	414	..	11	..	..
	Darnley Street .....	..	..	..	..	2282	..	..
	Edgeware Street .....	314	964	160	2	..	..	..
	Embledon Street .....	924	3570	1303	4	104	..	..
	Foley Street .....	717	1892	495	66	..	..	..
	Gelling Street .....	710	865	727	145	20	..	..
	Grinfield Street .....	31	17	41	1	1	..	..
	Knight Street .....	117	388	45	9	..	..	..
	Parliament Street .....	328	1621	506	180	26	..	..
	Peel Street .....	221	1848	566	..	..	..	..
OLD PARTS.	Bachelor Street .....	152	1053	419	79	3	..	..
	Back Commutation Row (1) .....	618	2734	539	..	..	..	..
	"    "    "    (2) .....	505	2588	315	..	..	..	..
	Benledi Street .....	495	932	345	1	..	..	..
	Bevington Hill .....	1476	1364	204	752	..	..	..
	Bolton Street .....	966	1945	952	45	..	..	..
	Byrom Street .....	..	..	..	..	770	..	..
	Cross Street .....	..	..	..	..	8700	..	..
	Finch Place .....	902	3441	939	125	3	..	..
	Frederick Street .....	1060	2877	439	4	102	..	..
	Hodson Street .....	682	3162	795	37	..	..	..
	Hood Street .....	1350	1851	1042	14	..	..	..
	Leeds Street .....	945	656	35	..	1001	..	..
	Lower Milk Street .....	..	..	..	..	735	..	..
	Lydia Ann Street .....	125	294	192	..	3	..	..
	Norfolk Street .....	1207	2108	451	2	30	..	..
	Norman Street .....	..	..	..	..	2350	..	..
	Plumbe Street .....	..	..	..	..	1714	..	..
	Price Street .....	330	1407	149	4	5	..	..
	Scotland Road .....	121	592	115	7	..	..	..
	Soho Street .....	..	..	..	..	2188	..	..
	Stanley Road .....	518	1001	176	92	611	..	..
	St. James Street .....	412	1282	327	..	3	..	..
	Upper Milk Street .....	1456	714	..	1	16576	..	..
Total in Private Slaughter-houses .....		20169	56213	15696	1648	41056	..	..
Total in the Borough .....		47916	205632	15696	13517	63061	2246	31588
							67	



## UNWHOLESOME MEAT AND FISH SEIZED AND DESTROYED.

DATE.—1878.		Beef.	Veal.	Mutton.	Lamb.	Pork.	Poultry	Rabbits	Fish.	Shell-fish.	
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Head	Head	Lbs.	Bags.	
SLAUGHTER HOUSES.	Abattoir .....	148620	6404	24304	..	23690	..	..	..	..	Queen's Square Market....1 parcel of Oranges. St. John's Market.....36 parcels of Oranges.
	Bevington Hill .....	2463	6209	1569	..	18439	..	..	..	..	
	Byrom Street .....	..	..	..	..	25	..	..	..	..	
	Benledi Street .....	..	70	..	..	..	..	..	..	..	
	Bachelor Street.....	..	..	43	..	..	..	..	..	..	
	Cotter Street.....	..	..	..	..	790	..	..	..	..	
	Cross Street .....	..	..	..	..	10366	..	..	..	..	
	Foley Street .....	430	..	..	..	..	..	..	..	..	
	Finch Place .....	535	..	411	..	..	..	..	..	..	
	Grinfield Street.....	..	68	..	..	..	..	..	..	..	
	Gelling Street .....	1020	370	56	..	..	..	..	..	..	
	Hood Street .....	..	..	31	..	..	5	..	..	..	
	Leeds Street .....	..	107	..	..	..	..	..	..	..	
	Norfolk Street .....	100	..	75	..	50	..	..	..	..	
	Norman Street .....	..	..	..	..	220	..	..	..	..	
	Parliament Street....	872	298	289	..	..	..	..	..	..	
	Price Street .....	230	..	..	..	..	..	..	..	..	
	Scotland Road .....	1254	..	45	..	22	..	..	48	48	
	Stanley Road.....	15597	219	2288	..	14403	..	..	134	..	
	St. James Street .....	140	..	299	..	120	..	..	..	..	
	Sandhills .....	3490	75	520	..	240	..	..	..	..	
	Soho Street .....	..	..	..	..	582	..	..	..	..	
	Upper Milk Street ..	6195	477	434	..	20978	..	..	..	..	
MARKETS.	Pownall Square .....	140	..	..	..	..	..	..	..	..	
	St. James' .....	2666	..	909	..	3040	..	..	..	..	
	St. John's .....	3984	1884	2967	21	501	507	994	220219	163	
	St. Martin's .....	1546	..	257	..	5546	..	..	..	..	
OTHER PARTS.	Anson Street.....	..	27	..	..	..	..	..	..	..	St. John's Market, .....25,200 Oysters.
	Ashfield Street .....	..	..	..	..	200	..	..	..	..	
	Addison Street .....	..	..	..	..	..	..	..	112	..	
	Athol Street .....	137	..	..	..	..	..	..	..	..	
	Brownlow Hill .....	136	..	..	..	..	..	..	32	..	
	Breck Road .....	..	70	..	..	145	..	..	20	..	
	Brasenose Road.....	325	..	..	..	..	..	..	..	..	
	Blackstone Street....	740	..	..	..	..	..	..	..	..	
	Burlington Street....	125	..	..	..	..	..	..	..	..	
	Brunswick Road .....	..	..	..	..	..	..	..	15	..	
	Castle Street .....	..	64	..	..	..	..	..	..	..	
	Collingwood Dock ..	570	..	..	..	..	49	..	..	7	
	Copperas Hill .....	80	..	..	..	..	..	..	..	..	
	Cleveland Street .....	..	..	..	..	..	..	..	20	..	
	Central Station .....	..	..	..	..	..	..	..	..	2	
	Clarke Street.....	..	70	..	..	..	..	..	..	..	
	Christian Street .....	..	..	92	..	23	..	..	..	..	
	Cornhill .....	..	..	..	..	280	..	..	..	..	
	Dawson Street .....	112	..	..	..	..	..	..	..	..	
	Eldon Place .....	..	..	..	..	..	..	..	12	..	
	Fox Street .....	..	..	..	..	..	..	..	216	..	
	Great Crosshall Street	..	..	40	..	..	..	..	..	..	
	Great Charlotte Street	..	..	..	..	..	..	..	24008	..	
	Great Homer Street..	..	..	..	..	72	..	..	66	..	
Carried forward....		191507	16412	34629	21	99732	561	994	244902	172	..

## UNWHOLESOME MEAT AND FISH SEIZED AND DESTROYED.

*Continued.*

DATE.—1878.		Beef.	Veal.	Mutton	Lamb.	Pork.	Poultry	Rabbits	Fish.	Shell-fish.	
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Head	Head	Lbs.	Bags.	
Brought forward ..		191507	16412	34629	21	99732	561	994	244902	172	
OTHER PARTS.	Hill Street .....	644	..	132	..	..	..	..	10	..	
	Horatio Street .....	..	..	..	..	..	..	..	10	..	
	Gt. George Place .....	1046	196	306	..	94	..	..	16	..	
	Highfield Street .....	200	..	..	..	..	..	..	..	..	
	Huskisson Dock .....	..	..	400	..	3120	..	..	..	..	
	Heyworth Street .....	..	..	21	..	..	..	..	..	..	
	Houghton Street .....	..	..	..	..	..	..	..	448	..	
	King's Dock .....	..	..	980	..	..	..	..	..	..	
	Kirkdale Road .....	115	..	..	..	..	..	..	..	..	
	Lime Street Railway..	..	..	..	..	..	..	..	6600	4	
	London Road.....	105	..	100	..	..	..	..	120	..	
	Mill Street.....	1691	75	108	..	154	..	..	..	..	
	Myrtle Street .....	22	..	..	..	..	..	..	..	..	
	Midghall Street .....	..	..	..	..	..	..	..	237	..	
	Manesty Lane .....	..	..	..	..	..	..	..	6810	..	
	Paddington .....	115	..	..	..	..	..	..	6	..	
	Park Road.....	203	..	328	..	7	..	..	70	..	
	Pembroke Place .....	..	..	..	..	..	..	..	20	..	
	Pitt Street.....	..	..	..	..	75	..	..	2337	..	
	Queen's Road .....	..	..	..	..	46	..	..	..	..	
	Rose Hill .....	..	..	45	..	..	..	..	..	..	
	Roscommon Street ..	..	..	..	..	..	..	..	28	..	
	Rathbone Street ..	..	133	66	..	..	..	..	..	..	
	Rose Street .....	..	..	..	..	..	..	..	26602	..	
	Sawney Pope Street..	..	..	..	..	448	..	..	496	..	
	Sinclair Street .....	..	..	..	..	..	..	..	2220	..	
	Smithdown Lane .....	..	..	..	..	..	..	..	10	..	
	St. James Place .....	272	..	..	..	..	..	..	..	..	
	Seel Street .....	..	..	120	..	..	..	..	..	..	
	Stanhope Street .....	7	..	..	..	5	..	..	..	..	
	Tarlton Street .....	100	..	..	..	..	..	..	..	..	
	Trafalgar Dock .....	..	..	..	..	1344	..	..	..	..	
	Vauxhall Road .....	..	..	..	..	..	8	29	..	..	
	Wavertree Road .....	256	..	..	..	..	..	..	..	..	
	Walton Road.....	148	..	..	..	..	..	..	..	..	
	Warwick Street .....	216	..	..	..	..	..	..	..	..	
	West Derby Road....	..	..	..	..	204	..	..	63	..	
TOTAL .....		196647	16816	37235	21	105229	569	1023	291004	176	..

Huskisson Dock.....227800 Oysters.

Lime Street Railway.....33000 „

Waterloo Dock .....39000 „

Number of Informations for Exposing for Sale Diseased Meat and Fish .. 82  
 „ Fined .. .. 72  
 Amount of Fines .. .. £159 11 3  
 Three Informations for removing Cows affected with  
 Pleuro-Pneumonia, and Fines inflicted .. .. 3 2 0

## NUISANCES.

Nuisances inspected, complained of by Inhabitants	..	..	..	..	2,747
„ Reported by District Officers	..	..	..	..	69,121
„ Notices issued	..	..	..	..	30,440
„ Referred to the Medical Officer	..	..	..	..	4,464
„ „ Borough Engineer	..	..	..	..	2,865
„ „ Building Surveyor	..	..	..	..	730
„ „ Water Engineer	..	..	..	..	6,949
„ „ Superintendent of Scavengers.	..	..	..	..	6,488
Number of Nuisance Informations	..	..	..	..	2,513
„ Fined	..	..	..	..	285
„ Magistrates Order to abate	..	..	..	..	860
„ Acquitted and Withdrawn	..	..	..	..	1,368
Amount of Fines	..	..	..	..	£131 16 6

## HOUSE TO HOUSE VISITATION.

Number of Streets Examined	..	..	..	..	3,433
„ „ Houses Examined	..	..	..	..	56,609
„ „ „ found Clean	..	..	..	..	51,730
„ „ „ „ Dirty	..	..	..	..	4,879
„ Apartments in Street Houses Examined	..	..	..	..	193,830
„ Courts Examined	..	..	..	..	4,379
„ „ Houses Examined	..	..	..	..	21,748
„ „ „ found Clean	..	..	..	..	17,603
„ „ „ „ Dirty	..	..	..	..	4,145
„ Apartments in Court Houses Examined	..	..	..	..	65,248
„ Re-inspections of Dirty Houses	..	..	..	..	21,451
Total number of Houses Examined	..	..	..	..	99,808

## CELLAR EXAMINATION.

Number of Streets in which Cellars were Inspected	..	..	..	..	2,374
„ Cellars Inspected	..	..	..	..	22,300
„ „ found Empty	..	..	..	..	11,430
„ „ Illegally Occupied	..	..	..	..	692
„ „ Legally	..	..	..	..	10,178
„ Courts in which Cellars were Inspected	..	..	..	..	2,283
„ Cellars Inspected	..	..	..	..	10,519
„ „ found Empty	..	..	..	..	8,176
„ „ Illegally Occupied	..	..	..	..	118
„ „ Legally	..	..	..	..	2,225
„ Cellar Notices issued	..	..	..	..	778
„ „ Informations	..	..	..	..	239
„ Fined	..	..	..	..	214
„ Acquitted and Withdrawn	..	..	..	..	23
„ of Cellars ordered to be Closed after second conviction	..	..	..	..	2
Amount of Fines	..	..	..	..	£24 15 0

## INFECTED AND DIRTY HOUSES.

1,759 Infected Street Houses Inspected, containing	..	..	..	2,613 cases.
538 „ Court	..	..	..	717 „
85 „ Cellars	..	..	..	116 „
Number of Notices to Owners to Cleanse Infected Houses	..	..	..	2,538 „
„ „ Occupiers to Whitewash Dirty Houses	..	..	..	10,524
„ „ Owners to Whitewash Exteriors of Courts	..	..	..	2,588
„ Renewed Notices to Whitewash	..	..	..	5,924
„ Informations against Infected and Dirty Houses	..	..	..	718
„ Fined	..	..	..	73
„ Acquitted and Withdrawn	..	..	..	645
Amount of Fines	..	..	..	£33 1 6



## SHIPPON AND PIGGERY INSPECTION.

Number of Shippons and Piggeries Inspected	..	..	..	..	..	1,268
,, Informations	..	..	..	..	..	36
,, Fined	..	..	..	..	..	36
Amount of Fines	..	..	..	..	..	£14 19 0

## COURT AND PRIVY EXAMINATIONS.

Number of Visits to Courts and Alleys	..	..	..	..	..	129,553
,, Closets found Dirty, but Cleansed during Officer's Inspection	..	..	..	..	..	83,128
,, Informations	..	..	..	..	..	6
,, Fined	..	..	..	..	..	5
Amount of Fines	..	..	..	..	..	£1 2 0

## PROCEEDINGS FOR EXCESSIVE SMOKE.

Number of Informations against Manufactories	..	..	..	..	..	182
,, " " Steamers	..	..	..	..	..	56
,, Fined	..	..	..	..	..	236
,, Acquitted or Withdrawn	..	..	..	..	..	2
Amount of Fines	..	..	..	..	..	£219 4 6

## PROCEEDINGS UNDER THE ADULTERATION ACT.

Number of Articles Purchased for Analysis	..	..	..	..	..	256
,, Informations	..	..	..	..	..	104
,, Fined	..	..	..	..	..	93
,, Acquitted and Withdrawn	..	..	..	..	..	11
Amount of Fines and Costs	..	..	..	..	..	£132 18 7

## WATER CLOSET CONVERSIONS.

Number of Notices	..	..	..	..	..	..	593
,, Certified	..	..	..	..	..	..	2,092
,, Constructed	..	..	..	..	..	..	2,614
,, of Closets standing over from 31st December, 1877	..	..	..	..	..	..	983
,, in Progress of Construction	..	..	..	..	..	..	63
,, under Notices not expired	..	..	..	..	..	..	296
,, granted extension of time by Health Committee and Magistrates	..	..	..	..	..	..	102
,, of Informations	..	..	..	..	..	..	81
,, Fined	..	..	..	..	..	..	7
Amount of Fines	..	..	..	..	..	..	£8 6 6

## SMOTHERED CATTLE.

Calves.	Beasts.	Sheep.	Pigs.	Number found good.	Number found bad.	Weight of Bad in pounds.
..	219½	350	388½	459	499	100764

Also 71 head of Poultry which were found bad.

## REMOVALS TO MORTUARIES AND HOSPITALS.

Bodies Removed to Mortuaries.			Persons Removed to Hospitals.			
Smithdown Rd.	St. Martin's.	Anfield.	Brownlow Hill.	Mill Road.	Toxteth Park.	Netherfield Rd.
3	61	..	287	38	6	106

The following report has been kindly prepared by the Superintendent of the Scavenging Department,  
RICHARD S. REYNOLDS, M.R.C.V.S.:—

Year 1878.

TABLE No. 1.

NIGHT SERVICE FOR EMPTYING MIDDENS, COURT ASHPITS, AND SOME OFFICE ASHPITS.

Notices Received.	Middens, &c., Emptied.	Loads of Nightsoil and Ashes.						Nightly average Working Staff.				Analysis of Work.		Average contents of each Midden.  Cart Loads.	
		Number Removed.			Where Deposited.			Midden men.	Wharf men.	Carts.	Horses.	Loads per man per night.	Loads per cart per night.		
		Manure.	Ashes.	Total.	Phillips Street.	Sandhills.	South Wharves.								Ashes to Tips.
15,110	28,057	38,818	8,998	47,816	33,078	11,572	3,166	..	47·4	10·	33·	35·	3·24	4·66	1·7

TABLE No. 2.  
SERVICE FOR THE COLLECTION AND REMOVAL OF DRY ASHES.

Notices Received.	Ashpits Emptied.	Loads of Dry Ashes.							Average Daily Working Staff.			Analysis of Work.		Average contents of each Ashpit.
		Number Received.			Where Deposited.				Ashpit men.	Carts and Waggons.	Horses.	Loads per man per day.	L oads per cart per day.	Cart Loads.
		From Ashpits.	By " Bell " Carts:	Total.	Phillips Street.	Sandhills.	South Wharves.	Rubbish Tips, &c.						
18,892	41,968	42,843	16,033	58,876	19,647	2,345	2,563	34,321	45·9	41·7	44·	4·1	4·45	1·4

**TABLE No. 3.**  
SERVICE FOR FLUSHING AND CLEANSING TROUGH WATER CLOSETS.

Number of Urinals.	Number of Trough Water Closets.	Average Working Staff.	
		Trough W. C. Men.	Urinal Men.
210—460 Stalls	3,726	48·5	10·3

**TABLE No. 4.**  
SERVICE FOR CLEANSING, COLLECTION AND REMOVAL OF REFUSE FROM STREETS, COURTS, PASSAGES, &c.

Loads of Street Sweepings Removed.					Average Daily Staff.				Average Number of Loads Removed Daily per Cart.	
Total Number Removed.	Where Deposited.				Scavengers.	Sweeping Machines.	Carts.	Horses.		
	Phillips Street.	Sandhills.	Wavertree.	South Wharves.						Refuse on Tips and New Macadam.
86,186	43,495	8,580	258	13,281	20,572	307	13	61·6	76·8	4·49



TABLE No. 5.  
SERVICE FOR STREET WATERING.

Number of Days on which Water Carts were out.	Total Number of Loads Distributed.	Average Daily Staff employed during the Season.		Average Number of Loads Distributed Daily per Cart.
		Watermen.	Carts and Horses.	
108	141,666	13·8	20·8	36

TABLE No. 6.  
DESPATCHES OF MANURE AND REFUSE.

	Saleable Manure.				Unsaleable Refuse.				Grand Total.	Average Daily Staff.	
	Night Soil.	Sweepings.	Mixture.	Total.	Contractors.	Farmers.	Depots.	Total.		Inspectors and Foreman.	Labourers
Philips Street . . . .	31,440	32,208	960	64,608	37,392	1,152	6,192	44,736	109,344	}	13·6
Sandhills . . . . .	2,064	..	96	2,160	9,696	96	432	10,224	12,384		1
Do. by Rail..	8,728	4,887	72	13,687	..	158	..	158	13,845		1
Wavertree do. . . .	968	192	..	1,160	..	..	..	..	1,160	1	1·4
South Wharves ..	1,761	2,435	8,483	12,679	..	5,445	3,800	9,245	21,924	1	8·1
	44,961	39,722	9,611	94,294	47,088	6,851	10,424	64,363	158,657	3	23·1

TABLE No. 7.  
HORSES.—DAILY AVERAGE NUMBER.

Hired.	Corporation Horses.				Supplied for various Works													
Number.	Number.	Effective for Work.	Percentage of Ineffectives.	At Work every Sunday.	Scavenging.								Borough Engineer.			Horsing Police Vans.	Disinfecting Vans, &c.	Improvement Committee.
39	218	211·8	4	25·1	Night Soil Removal.	Dry Ash Removal.	Street Scavenging.	Yards, Stables, Stores, &c.	Discharging Refuse.	Market.	Superintendent.	Watering.	Paving.	Sewers Cleansing.	Brownlow Street.	7·2	5·6	2

Number Purchased.	Number Disposed of.		
	Died.	Destroyed.	Sold.
39	10	2	25

TABLE No. 8.  
AVERAGE DAILY STAFF OF MEN EMPLOYED.

General.	Night Service.				Day Service.														Stables, Yards, and Stores.				Workshops.					Wharves, Depots, &c.										Grand Total.																				
	Inspectors.	Timekeeper, Checker, &c	Disinfecting Men.	Clerks	Office Boy.	Total.	Inspectors.	Midden Men.	Wharf Men.	Total.	Inspectors and Foremen.	District Storekeepers.	Watermen.	Barrow Men.	Sweepers.	Cart Followers.	Passage Men.	Gully Men.	Trough Closet Men.	Urinal Men.	Ash Men.	Boat Men.	Orderly Boys.	Total.	Horsekeepers.	Night Watchmen.	Carters, Yardmen, Stable-men, and Storekeepers.	Total.	Cartwrights.	Shoeing Smiths.	Blacksmiths and Strikers.	Painter.	Labourers.	Total.	Foremen.	Labourers.	Phillips' Street.		Foremen.	Labourers.	Sandhills.	Foremen.	Labourers.	South Wharves.	Foremen.	Labourers.	Bromborough.	Foremen.	Labourers.	Gorse Lane, Aintree, and Ford.	Foremen.	Labourers.	Various Town Deposit Places.	Foremen.	Labourers.	Total.		
1	2	3	4	1	8	3	5	48	10	1	63	1	16	47	6	82	3	103	62	4	25	32	48	10	3	45	9	4	9	449	5	4	203	4	211	4	10	1	6	91	7	1	2	28	1	13	6	1	8	14	7	1	19	27	7	59	819	3



TABLE No. 9.

Daily Consumption of Provender and Weekly Cost per Horse per Week.  
Food and Litter.

Days Keep.	Corn .....	795,120 lbs.	9·9	14s. 1d. gross weekly cost.  10d. Credit value of ——— Manure. 13s. 3d. nett cost.
79,604 Corporation Horses.  955 Livery, &c.  80,559 Total.	Beans and Peas ..	401,784 ,,	5·	
	Oats .....	19,170 ,,	·2	
	Bran .....	173,300 ,,	2·1	
	Meal .....	83,644 ,,	1·3	
	Roots .....	32,242 ,,	·3	
	Grass.....	151,740 ,,	1·8	
	Hay .....	858,140 ,,	10·6	
	Straw .....	526,220 ,,	6·4	
	Sawdust .....	3,534 sacks	·044	



DEATHS REGISTERED IN THE BOROUGH OF LIVERPOOL,  
DURING THE YEAR ENDING SATURDAY, 28TH DECEMBER, 1878.

[illegible]



